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AN ACTION RESEARCH STUDY ON TEACHER DEVELOPMENT: A
CONSTRUCTIVIST APPROACH

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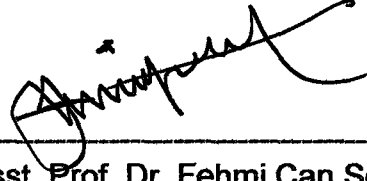
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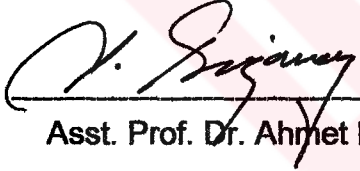
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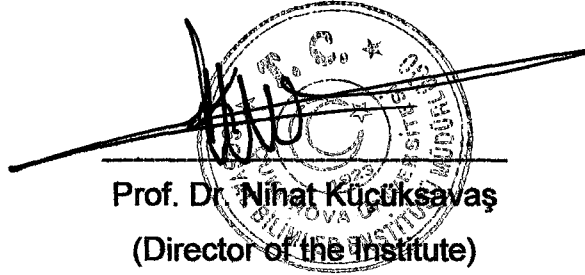


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*THIS DISSERTATION IS AFFECTIONATELY DEDICATED TO THE MOST PRECIOUS
HUSBAND AND "FATHER"
TO
MY HUSBAND BULENT YAMAN & MY FATHER SUAT INCE*

ÖZET**SORUN ÇÖZME YAKLAŞIMI İLE
ÖĞRETMENİN MESLEK İÇİ GELİŞMESİ: YAPISALCI GÖRÜŞ****Şaziye YAMAN****Doktora Tezi, İngiliz Dili Eğitimi Anabilim Dalı****Danışman: Yard. Doç. Dr. Fehmi Can SENDAN****Ocak 2004, 448 sayfa**

Bu çalışmada, yedi İngilizce öğretmeninin katılımıyla bir öğretmen geliştirme programı kurulmuş, öncelikle öğretmenlerin gelişebilmek ve dolayısıyla değişebilmek için gereksinimleri olan alanlar ortaya çıkarılmış, sonrasında ise bu öğretmenlerin etkili dil eğitimi konusundaki bireysel teorileri belirlenmiştir. Öğretmen geliştirme programında, katılımcıların kendi problemlerini çözmelerine katkıda bulunacak sorun çözme merkezli yaklaşım benimsenmiştir. Araştırma ve uygulama sürecinde problem çözme metodu ile birlikte işbirliği ile öğrenmeyi benimseyen ve niteliği ön plana çıkaran model kullanılmıştır. Bu çalışmada George Kelly' nin (1955) Kişisel Konstrük Kuramı (Yapısalcılık) benimsenmiştir. Çalışmanın amaçları doğrultusunda Repertory Grid tekniği kullanılarak öğretmenlerin etkili dil öğretimi konusundaki bireysel teorileri ortaya çıkarılmış, bireysel olarak gelişmeye gereksinim duydukları alanlar ve ilgileri tek tek belirlendikten sonra, sorun çözme yaklaşımının basamakları uygulanmıştır. Bu basamaklardaki süreç, öğretmenlere gereksinimlerine yönelik "bilgi verme ve sınıf içi uygulamaları" olmak üzere iki safhada ele alınmıştır. Repertory grid tekniği ile belirlenen "program içeriği, öğrenme ve öğretme, ve araştırma" süreci, öğretmenlerin kendi sınıflarında

bireysel teorilerinin ve ilgilerinin gözlemlenmesi ile devam etmiştir. Elde edilen veriler, öğretmenlerin etkili dil öğretimi konusundaki görüşlerinde yapısal ve içeriksel değişiklikler olduğunu ve bu değişikliklerin tutum ve davranışlarına da yansıdığını ortaya çıkarmıştır. Repertory Grid FOCUS, Exchange, Sociogrid analizleri yapmış, ve toplanan bireysel teoriler içeriksel ve yapısal olarak ele alınmıştır.

Anahtar Kelimeler: Sorun çözme yaklaşımı, Kişisel Konstrük Kuramı (Yapısalcılık), Repertory Grid, Meslek-içi Öğretmen Gelişimi, Öğretmen Öğrenmesi ve Düşünmesi, Yansıtıcı Öğretim.



ABSTRACT**An Action Research Study on Teacher Development: A Constructivist
Approach****Şaziye YAMAN****Ph.D. Thesis, English Language Teaching Department****Advisor: Asst. Prof. Dr. Fehmi Can SENDAN****January 2004, 448 pages**

In this study, firstly, we have explored the nature of seven EFL teachers' perceived needs for change at the outset of the teacher development program. Later, teachers' (in-service) development and their personal theories of effective language teaching have been dealt with thoroughly. We have adopted a problem-centered approach to teachers' development by helping them set up their own agenda for change. We employed a research process where an action research methodology was used. A collaborative and qualitative action research model was used in this study on the basis of Kelly's (1955) personal construct theory as a theoretical and methodological framework. In order to achieve the aim of this study, the teachers' perceptions of effective language teaching were elicited. After the identification of their needs and interests, they were involved in an action research process through input and classroom inquiry phases. After the repertory grid administrations of the teachers, the constructs elicited from them were observed in their classes through notes and checklist. Thus, the content and the structure of the teachers' personal theories, the changes in their theories and the consistency between the

conceptual and behavioural changes were investigated. The repertory grid data were subjected to Focus, Exchange, Sociogrid and content analysis.

Key words: Action Research, Personal Construct Theory, Repertory Grid, In-Service Teacher Development, Teacher Learning and Thinking, Reflective Teaching.



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CHAPTER 1

INTRODUCTION

1.1 Background to the Study

This study is an attempt to accomplish two aims at the same time. Firstly, it attempts to explore the nature of EFL teachers' perceived needs for change at the outset of a teacher development program in which the teachers are encouraged to set up their own agenda. Within this framework, the teachers are expected to become aware of the process of their learning through problem solving and decision making.

Secondly, this study aims to develop for the researcher an understanding of how to implement and conduct teacher development courses in which the teachers are encouraged to identify their own needs, their own models, and learning are developed, and the strategies and methods are designed. ELT teachers' in-service development and their personal theories that lead to effective language teaching will be dealt with thoroughly.

In our study, we adopt a problem-centered approach to teacher development in which teachers become the agent of their own change. In light of review of literature on teacher learning and change, we realise that the answer to this problem lies in *action research*.

We draw particularly on Kelly's (1955) *personal construct psychology* (or *personal construct theory*) or *constructivism* as a theoretical and methodological

framework. Kemmis and McTaggart's (1982) action research design has been chosen as it promotes the importance of teachers investigating their own practices and beliefs within their own contexts by themselves and with colleagues in response to needs they have identified.

The design was built upon constructivist assumptions which propose that "human beings have no access to objective truth, and thus individuals have no choice but to create or construct meanings and knowledge through participation in the interpersonal, inter-subjective interaction" (Kiraly, 2001, p. 50).

We drew upon recent work on teacher learning and change within this theoretical frame of reference (Ben-Peretz, 1984; Pope & Scott, 1984; Clark, 1986; Denicolo & Pope, 1990; Fullan, 1991; Diamond, 1991; Pope, 1991, 1993; Yaxley, 1991; Belleli, 1993; Myers, 1993; Pope & Denicolo, 1993; Bell & Gilbert, 1994; Saka, 1995; Sendan, 1995; Rönnerman, 1996; Howe & Stubbs, 1996; Sendan & Roberts, 1998; Telles, 1998; Yumru, 2000; Fung, 2000; Tubbs, 2000; Higgins & Moseley, 2001; Leitch & Day, 2001; Sawyer, 2001; Bell, 2002).

The action research methodology is an effective way of professional development for teachers and improving the practice of teaching and learning which the researcher built the study on (Dewey, 1938; Lewin, 1948; Burch & Miller, 1977; Piaget, 1970; Kolb, 1984; Kemmis & McTaggart, 1988; Argyris & Schön, 1989; Hopkins, 1993; Limerick, 1991; Zuber-Skerritt, 1992; Grundy, 1995, 1998; Carr & Kemmis, 1997; Curtis, 1998; Day, 1998; Winter, 1998; Arhar & Buck, 2000; Arhar et al., 2001; Lindhult, 2001; Marsh & Vagliardo, 2002).

1.2 Statement of the Problem

Traditional teaching methods, used frequently not only in Turkey but also in today's world classrooms, have many limitations. Lectures may not encourage students to be active, encourage critical thinking, and may not be adaptive to individual student needs. Dillon and Maguire (2001) see this problem as follows:

Training to become a teacher can therefore be a challenging as well as a frustrating business. A lot of ground is covered in a short time and this can result in feelings of stress and anxiety (Troman 2000). Your undergraduate learning experience may have focused on a formalized acquisition of content. In seminars you may well have looked at prepared papers or had content-driven academic debates. While these forms of learning feature in current teacher training, and while there is a necessary emphasis on classroom techniques and skills, learning to teach is fundamentally a personal challenge where practical, personal and emotional attributes are just as salient as intellectual capacities. (p.

4)

In most pre-service teacher education programs, trainees are given theories and they are provided with few opportunities to apply these theories practice and their professional lives. Teacher educators have tended to ignore the question of what teachers need to know about their subjects for them to teach effectively. Besides, in many cases, they are not ready for actual teaching. Diamond (1998) criticises the traditional approach and states the following:

Traditional 'outside-in' approaches to teacher education and teacher change seem to infer that teachers can simply have things 'done' to them by external forces. These more powerful others can include: subject heads, consultants, curriculum specialists, administrators, parents, public opinion leaders, legislators, and teacher educator-researchers. (p. 219)

In their teaching experiences, those teachers, having been trained as teachers who were encouraged to adopt the teaching style and techniques by their teachers and the system may find themselves less able to develop their own instructional voice and presence. So, they may not be able to reflect critically on their own teaching. It is claimed that these teachers, working individually or in a group may lack systematical attempts to understand herself, her students, the school context and/or new practices in order to improve her teaching.

Hence, teachers need both to maintain their intellectual and emotional health, motivation and enthusiasm and have sense of vision for change (Leitch & Day, 2001; Day 2001). In such situations, in-service teacher development programs will help to complement the inadequacies of preservice education. In contrast to traditional perspectives of learning, learners will share the belief that knowledge is actively constructed by themselves; the meaning of knowledge and their learning will not be given directly or imposed by an authority but built by the learner (Duckworth, 1996). In this perspective, the learner places a central role in his/her learning process. Such in-service programs will provide teachers the necessary skills and expertise to deal with real problems in their schools and classes. The need is expressed by Ben-Peretz (2001), citing the words of Britzman and Dipbo's (2000):

Teacher education must always waiver between the poles of hope for the future-that one's efforts in education can matter to the quality of lives lived-and despair towards one's own present, who one is becoming as one initiates and responds to the expectations, demand and pressures of curriculum, neighbourhood, and nation. (p. 56)

Teacher development is related to teachers' learning--that is, teachers' "personal, professional and social development" (Bell & Gilbert, 1994).

Learning new strategies, updating knowledge and skills, and subsequently, putting them into practice can be a daunting endeavor for teachers. Therefore, effective personal and professional programs which can be integrated inservice programs incorporates a component intended to assist teachers in implementing innovations in their classroom and school atmosphere. As long as the program is realistic, the teachers are taken seriously, (i.e., their interests and concerns are sought) and a wish for change is created, teachers' ownership of problems and real learning can come to fruition. In the absence of such programs, many teachers rely on methods they remember from their school experience.

In the past, there has been a widespread tendency for in-service teacher development programs which have been planned and implemented by educational authorities, emphasizing the instructional mode. And they are "designed and imposed from outside professional community of teachers" (Clark & Florio-Ruane, 2001, p. 5). It is this approach that has been shown to be largely ineffective in producing changes in teacher performance. During the last thirty years, studies have shown that top-down delivered professional development and curriculum implementation initiatives by governments and

academics, have been largely ineffective in creating substantial changes in classroom practices (Fullan, 1982). At the same time, there have been repeated calls to recognize the importance of the individual teacher in the change process (Fullan, 1982, 1993; Hargreaves, 1994a) and to learn more about how change is experienced from the teacher's perspective (Fullan, 1982; Hargreaves 1994b). If teachers are to respond to the current demand for achieving results, they must have greater freedom and greater support to direct their own professional learning.

The other point that has been ignored is to determine the starting place for teachers. We agree with the idea put by McIntyre and Hagger (1992, p. 271) that "teachers should develop, not that other people should develop teachers" (in Korthagen, 2001, p. 3). We assume that such attempts to implement innovations and pre-determined solutions in education are a mistake. As a result of that kind of learning, and because of the wish for change which comes from outside, the programs do not meet the needs and concerns of the teachers and the realities in their working environment (Korthagen, 2001, p. 3). McIntyre and Hagger (in Korthagen, 2001) clarifies this point as follows:

'Development' takes what is there as a valuable starting point, not as something to be replaced, but a useful platform on which to build. To do so is to recognise not only that teachers do have valuable existing expertise but also that, if teachers are forced to choose, they will usually revert to their secure established ways of doing things. The metaphor of 'building on what is already there' is not, however, satisfactory because it suggests adding on something separate to what is there, something extra on top. The concept of development, in contrast, implies that

whatever is added, whatever is new, will be integrated with what is there already, and will indeed grow from what is there. (p. 3)

Reflecting on the above argument, we might state that most of the teacher development programs employ inappropriate approach to teacher learning and hence they are insufficiently relevant to “teachers’ day-to-day problems” (e.g., Beasley & Riordan 1981; Bullock 1987; Eykyn 1987; Allwright & Bailey 1991; Armstrong 1980; Neubert & Binko 1987; Orem 1990; Sanford 1981; Tyler 1988). The problems inherent to traditional lecture models may be tackled by applying a constructivist learning approach (Jonassen, 1994). Yumru (2000) states two interrelated reasons for the mentioned problem in teacher development programs. They are:

- a. a lack of ownership for new ideas and innovations by teachers,
- b. a solution-centered approach by the teacher trainers.

Considering the reason for the first problem, along with Bailey (1992), Yumru (2000) states that teacher development programs should provide opportunities for teachers to create their own agenda for change. As for the second one, she points out that teachers need general competencies to acquire new knowledge and skills to solve context-specific problems i.e., a need to employ a “problem-centered” approach to teacher development (Eraut, cited in Yumru, 2000, p. 4).

Thus, the macro aims of this study are to find out answers to:

1. how to establish a framework for teacher development within which teachers are encouraged to set up their own agenda for change through a problem centered approach, and
2. how to uncover teachers’ perceived needs for change at the outset of a teacher development program.

In the light of review of the literature on teacher learning and change, we realise that the answer to the first question lies in action research. We recognise that teachers have a high degree of ownership over their own development if they are actively involved in identifying their own needs as teachers. This recognition is based on the belief that action research helps teachers making their own meaning through their professional practices and hence gives opportunity in creating their own agenda (Roberts, 1998). As a result of this kind of learning, teachers maximize their professional growth in ways that are personally meaningful as well (Roberts, 1998).

We believe that teachers in an action research process develop their own capacities to solve problems, research ideas, and meet the needs of their students. Because action research within any educational framework "requires the inclusion of theory to augment practice for effective transformation in teaching and learning" (Nowlan, 2001, n. p.). Action research arises from teachers' own experiences as teachers and as learners. The more effective the action research process is in encouraging change in teachers' thinking, the greater the need is for this type of flexible individual support. The teachers' own sense of self can be reflected in their teaching since self is believed to be deeply embedded in teaching (Fullan, 1991). Action research process can be more successful if teachers take responsibility for the planning and implementation themselves.

The answer to the second question raised in this study lies in personal construct theory and the *repertory grid* (repgrid), the methodological component of personal construct theory, both as a *research tool* for uncovering teachers'

perceived needs for the *features of teachers that lead to effective language teaching* and as a *learning tool* for awareness raising of teachers.

A fundamental principle of constructivism is that "if you wish to understand a person, then you have to understand how he or she perceives the world, and so how he or she construes personal choices and decisions" (Kelly, 1955). Burr and Butt (1992) observed that "Kelly insisted that if you want to help people to change, you must first understand the construction they are placing on their world, the theories they hold and the questions they are asking" (p. 3). Drawing on this argument, it is stated that the repertory grid might be used as a heuristic tool for uncovering and/or investigating teachers' personal constructs on a variety of themes. (Kelly 1955; Day, Denicolo & Pope, 1990; Diamond, 1991; Pennington, 1990; Roberts, 1998; Christie & Menmuir, 1997).

That is, by using the repertory grid, we can elicit teachers' construction of their personal needs and/or personal agenda for change. By doing this, we aim to help the teachers to develop and to become "more themselves," not to direct them to use pre-determined solutions favoured by others (Zuber-Skerrit, 1992).

1.3 The Aim and the Scope of the Study

Given the view of teacher learning as a need for teachers' personal and professional development, and the emphasis upon professional teachers' conceptual and behavioural developments, this study has been concerned with the nature of and the changes in personal theories as regards to teacher effectiveness during a teacher development program.

The study explores a group of secondary school teachers' perceived personal and professional development needs at the outset of a teacher development program through collaborative action research which focuses on teachers' personal and professional development as well as their classroom practice.

Thus, the aim of this study is three fold:

- Initially, the study aims to explore in depth the nature of secondary school EFL teachers' perceived needs.
- Secondly, it aims to establish an environment for teachers' learning at the outset of a teacher development program. In this environment, teachers are encouraged to identify their own skills and problems in their teaching. They try to develop their own teaching skills by designing appropriate strategies and methods. So, teachers are expected to take the responsibility for their own learning and to become innovative in their teaching. The program does not offer pre-determined context or ready-made solutions.
- Thirdly, the main aim is to investigate if there are any conceptual changes and behavioural changes at the end of the program and whether conceptual change is consistent with the teachers' behavioural change.

Regarding the effectiveness of teachers' learning and change, the researcher has dealt with:

- a. the content and structure of personal theories held by teachers and any changes in them,
- b. the nature of and the changes in their view of effectiveness in teaching as well as their view of self and ideal self as teachers,

c. possible behavioural change/s of teachers and the consistency between behavioural and conceptual change,

d. possible causes of the changes as construed by the teachers.

In this study, our main data collection sources (see Chapter 3) are repertory grids (see section 3.4.1) and subsequent in-depth interviews obtained from the teachers at the beginning (Time 1) and at the end of the program (Time 2) (see section 3.4.3), observation and feedback the teachers are given (see section 3.4.2), and the teachers' learning logs (3.4.4.2).

In this program, seven secondary school ELT teachers' personal theories—from different starting points and concerns on the research questions below—were elicited through the methodological component of personal construct theory, repertory grid to find out teachers' perceived needs. The focus in content of the repertory grid was the features of a teacher that lead to effective language teaching. Of the research questions, the researcher was able to identify changes in the content and structure of teachers' learning throughout the program.

Teachers were given support based on their needs and concerns elicited through repertory grids and follow-up interviews. We paid particular attention to giving structural support and input for the purpose of guiding teachers' through a process of reflection and hypothesis necessary for gaining full awareness of the demands and requirements of the new learning environment in a collaborative action research program. The researcher aims to help teachers to create knowledge from different sources, as well as their action research projects through experience, self reflection and critical debate with each other. This helps to articulate a need to be active in constructing their own

understanding, and knowledge by doing and experiencing among themselves, with both the researcher and colleagues.

Besides the repertory grid as pre and post measures, the researcher has observed teachers after the repertory grid administrations are completed (see Chapter 3). The aim was to see the compatibility of teachers' conceptual changes and behavioural changes at the end of the program.

1.4 The Research Questions

In order to attain the aims of this study, we have tried to answer the following research questions:

- 1). What is the nature of the structure and content of teachers' construct systems regarding the features that lead to effective language teaching at the beginning and end of teacher development program?
- 2). Are there any conceptual changes in the content of teachers' personal theories regarding the features that lead to effective language teaching due to a teacher development program?
- 3). Are there any conceptual changes in the structure of teachers' personal theories regarding the features that lead to effective language teaching?
- 4). Do teachers demonstrate any behavioural changes within this teacher development program?
- 5). Are the conceptual changes of teachers compatible with the behavioural changes?

1.5 Operational Definitions

Construct system: “A construct is a way in which some things are construed as being alike and yet different from others” (Kelly, 1955, p. 105). Pope (1985, p. 15) states that “constructs do not exist in isolation but hierarchically grouped; some having subordinate and others having superordinate positions within the system.” Constructs are used to give meaning to personal experiences.

“Constructs are used for predictions of things to come, and the world keeps on rolling and revealing these predictions to be either correct or misleading. This fact provides the basis for the revision of constructs and, eventually, of whole construct system” (Kelly in Shaw & Gaines, 1992).

In all his definitions, Kelly (1955) states the essential features of constructs that are bipolar, e.g., friendly/unfriendly. One, the positive pole of the constructs represents the basis of the perceived similarity, the other, negative pole, represents the basis of contrast (Ben-Peretz, 1984).

Personal Theories refer to the beliefs and constructs teachers apply to teaching. Personal theories are underlying system of constructs that teachers draw upon the ways in which they construe themselves, and about their views in teaching, learning and knowledge, about their experiences as learners and teachers, and their values. It provides a way of thinking about the teaching profession. They are often common sense and tacit in nature and may not necessarily be totally compatible and subject to gradual change through replication of past events and experiences (Kelly, 1955). Fundamental changes may only be expected when they are made explicit and directly challenged.

Structure: Sendan (1995) describes this term as follows:

The term *structure* refers to (a) the ways in which individual constructs are hierarchically organised into a whole system of construction (Kelly's [1955] organisation corollary), and (b) the ways in which the construction systems of different participants within the same cohort are related to one another (Kelly's [1955] commonality corollary). Thus, exploration of the changes in the structure of personal theories is dependent on the identification of structural patterns in the construction systems of the individuals in different cohorts. (p. 61)

Content:

Sendan (1995) defines this term as follows:

It refers to the intended meaning of personal constructs (i.e., teaching behaviours or teaching characteristics) proposed by the participants when making semantic distinctions about what constitutes effectiveness in teaching. Thus, exploration of the changes in the content of personal theories is dependent on the identification of thematic patterns in the personal constructs. (p. 60)

The construct labels elicited from each of the teachers are individually sorted by an interactive procedure into semantic categories with the intention of looking for differences in the pattern of terminology used by teachers.

Change in the Content of Personal Theories refers to the meanings the teachers attach to the qualities that they identify regarding the features of effective language teaching. Hence, changes in the content of teachers'

constructs refer to the identification and analysis of the thematic patterns in the personal constructs elicited from the teachers (Sendan, 1995). "Content change refers to personal theories of each teacher, we mean the semantic distinctions made by the participants when classifying and discriminating teachers known to them" (Sendan & Roberts, 1998, p. 60).

Change in the Structure of Personal Theories refers to the "ways in which an individual construes his/her personal constructs in a hierarchical manner into a whole system of his/her construction" (Sendan, 1995, pp. 60-1). "Thus, investigating the changes in the structure of the teachers' constructs refer to the identification and analysis of the structural patterns of the teacher" (Sendan, 1995, p. 61). Structural relationships in participants' thinking (of relatively tight and loose associations, and hierarchical relations between constructs) are represented spatially by means of the trees to the right of the FOCUSED grids. "By changes in structure, we mean the reorganisation of each individual teacher's system of constructs, as reflected by Exchange grid analyses of grids" (Sendan & Roberts, 1998, p. 61).

Teacher development is a term used in the literature to describe a process of continual intellectual, experiential, and behavioural growth of teachers. This process in this study is generated by teachers' personal and professional development in an inservice program. Teacher development refers to professional learning by teachers already engaged in professional practice, usually through reflective discussion sessions based on their input learning and current classroom experiences (Ur, 1997). And we, also, suggest that

professional learning brings to the teachers personal and social development. In this study, this term involves the terminologies of teacher learning and teacher change along with teachers' personal and professional development in the social environment of teachers. We agree with Underhill's (1991 in Arechaga, 2001) proposal which says that teachers involved in a process of development as learners increase their awareness and their consciousness about the ways they think, feel, and behave as teachers.

Change is not viewed as modification of behaviour, but referred to as teachers making coherent sense of personal meaning regarding new ideas and information; mapping new onto old, formulating beliefs in light of experience and input, forming ideas in light of beliefs, and reviewing ideas in light of observation and reflection (Mathur, 1987, cited in Yumru, 2000).

Conceptual change: Conception is viewed as a mental structure that includes also the person's beliefs and basic presuppositions, some of which are tacit. It is a schema of concepts developed from theoretical studies, from practice and from interactions with the world and society. The term conceptual change within learning process was applied to concepts that play important roles in thought and to a situation in which conceptions are replaced by another (Strike & Posner, 1992).

Vosniadou (1994) claims that

conceptual change is a continuous process of reinterpreting constraints on the concept. Although we tend to accept the continuous nature of conceptual change in the context of teachers' professional development,

we feel that at certain points there are 'quantum leaps' and the new conceptions are of a different nature, namely, of a 'strong' restructuring. Bearing in mind the lack of a clear-cut definition of this phenomenon, particularly with regard to teachers' professional development, we use the term 'conceptual change' to refer to the process of knowledge reconstruction which leads to a different conception than the previous one (cited in Gorodetsky, Keiny & Hoz, 1997, pp. 424-5).

Behavioural Change: Teachers' teaching behaviours are mostly dominated by routines that are not necessarily an outcome of rational decision making. Korthagen (1993) claims that teachers' actions are "*gestalts*—we want to refer to the personal conglomerates of needs, concerns, values, meanings, preferences, feelings and behavioral tendencies, united into one inseparable whole" (Korthagen, 2001, p. 6)—that are activated by stimuli without undergoing rational processing.

Similarly, although accepting constructivism as a viable set of beliefs, classroom activities may sometimes be dominated by control, shortage of time and colleagues' expectations which are implemented without too much effort and thought. As to Kelly (1955), behaviour is seen not as a reaction but as a proposition, not as the answer but as the question. He points out that behaviour is an experiment and in behaving one's asking a question of our world. Bannister and Fransella (1989) cites Kelly and argues that "construct theory treats scientists as persons and persons as scientists, in the sense that, our behaviour is our continual experiment with life" (p. 8). Allen et al., (2002, n. p.) argues that "behaviour change differs from person to person and the change

does not occur in one step. People move through stages of change in their own ways and in their own time.” Learning changes the learner, and change requires learning. Clearly having the knowledge of what you want to do involves learning. If a person is changing their behaviour it is because of new learning that requires them to adapt. Naturally, the actions people choose are directed by the way their construction system expects events to occur in the future. One of the key assumptions of constructivism is that people's behaviour may not always appear logical or rational to an outside observer although it will be consistent with the constructs being applied by the person involved. The fragmentation corollary provides some reasoning behind this and indicates that a person may successively employ a variety of construction subsystems which are incompatible with each other.

For the above reasons, the researcher in this study noted the teachers' constructs elicited through the repertory grid and the conceptions they represent in regard to change in practice. By observing teachers' teaching, the aim is to see changes in their thinking system. Through observation, the researcher accepts that the positioning of a particular event may be changed with respect to the construct axes or the hierarchical position of constructs may be changed and/or new constructs may be added. The question is to see change/s lead to different practices. Or does the adoption of new learning lead to behavioural change that, in turn, feeds still another different practice?

Action Research: In this study, it is “the systematic study of attempts to improve educational practice by groups of teachers by means of their own

practical actions and by means of their own reflection upon the effects of those actions” (Ebbutt, in Hopkins, 1985, p. 32).

In a larger definition, action research is

a form of collective self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of those practices and the situations in which the practices are carried out... The approach is only action research when it is collaborative, though it is important to realise that action research of the group is achieved through the critically examined action of individual group members (Kemmis & McTaggart 1988, pp. 5-6).

Collaboration: Participants in an action research project are co-researchers.

The principle of collaboration presupposes that each teacher's ideas are equally significant and potentially sourceable.

Repertory Grid is

a two-dimensional matrix depicting relationships amongst a person's personal 'constructs' and specific 'element', where an 'element' denotes the persons (including self), things, and events that together constitute an individual's environment ... 'constructs' denotes the dimensions or reference axes used by the individual to discriminate between elements. (Alban-Metcalfe, 1988, p. 488 cited in Bencze, 2000, n. p.)

Perception: In this study, perception refers to the participants' recognition and understanding of events, objects, and stimuli through the use of senses.

Innovation, in this study, refers to an idea, object or practice perceived as new by an individual or individuals, which is intended to bring about improvement in relation to desired objectives, which is fundamental in nature, and which is planned and deliberate (Nicholls, 1983, p. 4 cited in Bailey, 1992, p. 257).

Similarity and Contrast are seen in personal construct psychology in terms of likeness and differences which the person encounters in his/her experiences in the world.

Anxiety is the recognition that the events with which one is confronted lie outside the range of convenience of one's construct system (Kelly, 1955, p. 495). In case of anxiety, one's ability to construe and predict events is threatened with failure. "It is more likely to arise when a person whose constructs are relatively impermeable is confronted with new events" (Hall et al., 1985, p. 302).

Elaborative Choice: "People make choices so as to move their construct system in the direction of a greater ability to predict events" (Hall et al., 1985, p. 302).

Range of convenience refers to the assumption that, for any given individual at any given time a construct will only apply to a finite number of elements.

Both a construct and a system of constructs is seen as having a limited sphere of applicability. Certain features or events can be ruled out of consideration by a construct on the basis that, for them it is inappropriate or inadequate way of being viewed. The system is neutral towards them - they lie outside its range of convenience. (Pope, 1985, p. 18)

Werner (1997, in Pope, 1985) refers Kelly and states that

Kelly saw conceptual development as an evolutionary process which involved the progressive differentiation of conceptual structures (groups of constructs) into independently organised substructures and the hierarchic integration of these substructures at progressively higher levels of abstraction. The functional differentiation of structures enhances the "the range of convenience" of an individual's construct system. (pp. 18-9)

Core constructs are stable, more resistant to change and of central importance to the individual.

Permeability refers to a "degree of openness to change, the potential to countenance new features" (Pope, 1985, p. 18). It is "not a construct's plasticity, or it's amenability to change within itself, but its capacity to be used as a referent for novel events and to accept new subordinate constructions within its range of convenience" (Kelly, 1970a, p. 19 in Pope, 1985, p. 18).

Construing means, in this study, "placing an interpretation" (Telles, 1998, n. p.). Telles (1998, n. p.) quotes Kelly's definition:

In construing, the person notes features [qualities] in a series of elements which characterize some of the elements and particularly uncharacteristic of others. Thus he erects constructs of similarity and contrast. Both the similarity and contrast are inherent in the same construct. (Kelly, 1955 cited in Telles, 1998, n. p.).

Current Self refers to a teacher's perception of him/herself as a teacher. The teacher shows which teacher qualities s/he perceives him/herself as embodying.

Ideal Self refers to a teacher's perception of the teacher s/he would like to be. The teacher shows which teacher qualities s/he perceives are important for him/her to acquire.

Elements are the objects of an individual's thinking and to which they relate their concepts or values. These elements in this study are 11 ELT teachers--categorised three *effective*, three *typical* and three *ineffective* ones, their current *self as a teacher* and their *ideal self teacher*.

Cut-off point: This specifies the level to which construct and/or element trees are drawn (RepGrid 2 Manual, 1993).

Laddering: First introduced by Hinkle (1965), it "represents an assessment strategy at the personal-agentic level that directly elicit hierarchical features of the individual's personal construct system, linking concrete perceptions,

behaviors, or role descriptions with the higher-order issues they imply" (in Neimeyer & Bridges, 2003, p. 18, personal communication, March 26, 2003). "It can also help identify ... [one's] important ... values and strengths that can provide anchoring points for elaborating a 'preferred self' " (Eron & Lund, 1996 cited in Neimeyer & Bridges, 2003, p. 18).

1.6. Assumptions and Limitations

Teachers' thinking, learning and change have been the main focus of this study. We assume that this issue springs from an understanding that teachers, like their students, must engage themselves in learning throughout their career. Sze-yin et al., (2000, p. 2) proposes Zeichner's words and states that

No teacher education program, no matter what the orientation and no matter how good, can produce a fully developed teacher at the preservice level. Zeichner's statement can be elaborated in three major aspects. First, no teacher, trained or untrained, can cope with the rapid changing needs of society during their lifetime career without further learning. Second, no teacher training program, no matter how complete it is, can prepare practitioners for a lifetime job without further replenishment. Third, teachers like other people should be life-long learners. In short, teacher educators like practitioners must continue to learn in order to participate fully in their life career.

The underlying assumption here is that teachers' improvement is brought about through getting teachers to reflect on their own teaching (Fullan, 1982). This may be brought into reality with Stenhouse's idea (1975) that teachers'

professional learning is realized by inquiring into one's own practice. Teachers' learning requires the "building of conceptual structures through reflection and abstraction" (Von Glasersfeld, 1995, p. 14). Constructivism affirms that meaning is constructed by individuals in their attempts to make sense of the world (Driver & Oldham, 1986).

Related with the main focus of this study, we believe that we should understand tacit knowledge of the teachers, which refers to the kind of understanding that cannot be spoken or articulated. Most of teachers' practical knowledge and professional practices are implicit and tacit. Only conscious and well planned efforts are needed to make such tacit understanding explicit. Through systematic study of our tacit knowledge held inside our belief system, it becomes understandable why teachers would perform in a particular way. This kind of reflection and examination will also be helpful in understanding the specific context and constraints which hinder in their practice.

In this study, we assume that teachers have different experiences, and different starting points, and prior knowledge; they may construct different meanings in the same learning context (Osborne & Freyberg, 1985; Fensham et al., 1994). The need of teachers' inservice learning which take into account teachers' existing knowledge and experiences have been stressed by many researchers (Hodson, 1989; Erickson, 1991; Rubba, 1991; Diamond, 1993; Rönnerman, 1996). The nature of teachers' knowledge as well as with the relations between thinking and acting in their work is connected with the paradigm of "reflective teaching" (Day et al., 1990).

The present study, which aims to find out teachers' thinking and learning about their teaching, changes in their beliefs and behaviours has some

limitations. First of all, the limited number of volunteered teachers may cause problems in terms of the generalization of the results. For this reason, involving more teachers-and information about their personal theories-would offer more reliable and generalized results. This study is also limited by the analysis of teachers' conceptual and behavioural changes through repertory grid elicitation, the methodological component of the personal construct theory. This way of perceiving the relation between research and teachers' practice is in line with the position of Day (1984), who claims that

if research is to make a significant contribution to teacher learning and change, researchers must move away from the notion of themselves as prime designer and interpreters of the motivations, thoughts and actions of others towards a more independent role in which collaboration, consultation, and negotiation are first principles. (p. 73)

This study does not concentrate on the separate bits of teaching behaviours but on the patterns of teaching, as reflected in encompassing teachers' personal theories (as we categorised the teachers' personal theories—elicited constructs—in three settings; teaching behaviours, personal and academic qualities).

Some of the factors such as the activities employed, and the materials used in the program have not been used as data. Neither has the teachers' action research projects been taken into consideration. However, including the above mentioned issues might be beneficial in gaining a wider scope.

CHAPTER 2

REVIEW OF RELEVANT LITERATURE

2.0. Introduction

In this chapter, we review the relevant literature for the purpose of providing background information about conceptions of teacher development, paradigms of teacher development within the frame of reference to the reflective paradigm, and implications for in-service teacher development programs. In addition, we introduce the research methodology, action research, explanations and development of theoretical concept within teacher's learning in this framework.

Moreover, we present Kelly's personal construct theory, the theoretical framework the study draws on, and its methodological components and implications. We discuss the personal construct theory, or constructivism, as a theoretical framework for the research design, and we introduce a context for the study, overseeing the studies which show the teachers' thinking and any changes as such, which are particularly relevant to our research questions.

Finally, we discuss the compatibility of action research and constructivism.

2.1. The Framework for Inservice Teacher Development (INSET)

The late twentieth century has been called “the age of communication” (Wallace, 1991, p. 2). The world is constantly changing and becoming globalised. Thus, the need for learning a language is felt even more keenly.

So, language teaching, especially of the great world languages, which are seen as international channels of communication, becomes more important. With the explosion in language teaching there has been an increased demand for language teachers and the consequent need to train teachers. (Wallace, 1991, p. 2)

In line with this need, the importance of language teaching has always been on the agenda for Turkey (Demircan, 1988). Within this language teaching process, language teachers play an important role in language learning. Language teaching is affected by a complex system external to individual teachers, such as language curriculum, resource decisions; these are matched by internal dimensions, such as the teaching skill, teachers’ perceptions and beliefs, their decision-making, relationship with other teachers and sources, the anticipation of others’ expectations. Teacher development addresses teachers’ training and development needs so as to initiate change in their professional life.

“Until recently, two contradictory approaches to teachers’ professional development dominated the professional literature—one deficit and the other collaborative” (Lieberman & Miller, 1991 in Sawyer, 2001, p. 40). “While the former approach was primarily hierarchical involving teacher training, the later was more collaborative ...” (cited in Sawyer, 2001). They explain as follows:

However, a current goal of teachers' professional development is for teachers to 'build the kind of conditions that make possible teachers' continuous growth by providing ongoing opportunities for inquiry into their own practice'(Lieberman, 1994). This concept of teacher development is premised on teachers' improving their work and practice with their students by working on issues generated by their classroom practice. The distinction between this form of collaboration between teachers and the previous form of teacher collaboration is one of teacher agency. Hargreaves & Dawe (1990) argue that teachers engage in 'contrived collegiality' when working together on externally imposed agendas, a process that enhances administrative control and implementation, but not teachers' professional development. Teachers involved in 'collaborative cultures', on the other hand, engage in 'evolutionary relationships of openness, trust, and support among teachers where they define and develop their own purposes as a community' (p. 227). This form of teacher development is based on relationships teachers make between personal meanings, their work and their acquisition of new ways of teaching. (p. 40)

First, it has been recognised that in planning for professional development, teachers' existing beliefs and knowledge need to be taken into consideration, as these will influence the perspective of teachers in making an innovation and the sense they make of it. Second, non-critical assistance and support can be invaluable for facilitating teachers' review and reflection upon their own practices and beliefs. Third, opportunities to engage in professional dialogue with colleagues in similar situations, facing similar challenges, can provide

encouragement and support. Fourth, teachers need to feel a sense of responsibility for their own learning and development. They need to feel ownership of their problems. Finally, time, space and opportunity are needed for teachers to experiment with ideas and to reflect upon their experiences.

Roberts (1998, p. 223) suggests four types of inservice development of teachers according to how they are initiated and their purpose. These are:

- **Programs in co-ordination with ITE**, where elements of ITE are built on once teachers have had some experience
- **Centrally determined programmes**, controlled by a central authority, usually to attain long term educational outcomes set by government policy. Central initiatives are often required by curriculum innovations, systemwide changes which may demand changes in teaching style
- **Locally determined content, with local control**: emphasis on system needs, met by local providers with a clear brief set by the administration but with attention to local conditions and
- **Determined by individual needs**: emphasis on the personal or professional development of teachers.

Teacher development programs are needed to prepare teachers for change and therefore must help them to explore their existing views and practice; and provide them with opportunities to construct new meanings and test the adequacies of their own constructs (Diamond, 1993). To do this, teachers need to reflect on what they know and what they are doing in their classrooms by first looking at themselves as teachers. We assume that this practice is based on the belief that the teachers' place should be at the centre of the research

process in terms of identifying problems and strategies to solve them.

Teachers' involvement, participation and taking responsibility for their own learning and development are essential parts of this process.

Teachers should be involved in the decision-making process for choices related to their needs-what Richards and Lockhart (1994), Gebhard, (1996, 1998) call "informed choices." The informed choices given by teachers lead to a deeper awareness about teaching and learning; thus, they will be able to make appropriate decisions about what will be effective in their classrooms and how they will reach their goals.

Teachers are faced with challenges to their professional knowledge and to their prior (and developing) understandings of theoretical professional development in the light of teachers' experiences. This idea also stresses that there is need for a combination of theoretical, practical and reflective experiences to be built into teacher development programs to provide teachers with the opportunities they may need to develop their understandings and test their theories. Goddard et al. (1999) argues this issue more broadly and states that

It is in this context that we became involved in a professional development programme which uses teachers' knowledge and experience, and particularly the notion of the teacher as a critically reflective practitioner (Schön, 1983). We are not only concerned with the personal development of the teacher, but also with the effects of this on school development itself and, ultimately, on the pupil experience. A 'bottom-up' rather than a 'top-down' model of professional development is seen to be relevant to this process. Structured reflection is used as a

tool in learning and as part of a problem-solving process. We use the notion of the school as a learning organisation (Stenhouse, 1975) with teachers as learning agents within that organisation. The organised use of experience, reflection and conceptualisation has benefits for schools, teachers and children. (p. 12)

As a result of the above mentioned process of development, teachers will be encouraged to apply their own understandings, make a coherent theory-practice relationship, improve their professional practice, and more importantly, be able to evaluate their articulated theories by being involved in a critical reasoning and reflective process (Goddard et al., 1999).

2.1.1. Approaches to Teacher Development

In this study, the use of the term *teacher development* has been preferred to be used since it focuses on the teachers' in-service (not pre-service) learning and change in the use of the word *development*. Even though, we are restricting the term to teacher development, it is hard to find a single definition. It has been used interchangeably such as; staff development, teacher development, teachers' professional learning, teachers' continuing professional development, and teacher training. Teachers' in-service learning addresses training and development. Roberts (1998) sums up and distinguishes these two concerns. Training is seen as "the gap between the teacher's current level of skill or knowledge and the level required by their role in the system" (p. 221). However, the notion of development, according to Roberts (1998, p. 222) "implies more divergent objectives, which allow for teachers' individual differences and which are determined by teachers' sense of their own learning

needs.” Therefore, in this study, we prefer to use teacher development since we see teachers as “independent problem solvers” (Roberts, 1998, p. 222), those who take responsibility of their own learning in personal and professional development.

In this study, we recognise the following idea of Nyerere (1973, quoted in Ovens, 1999)

People cannot be developed. They can only develop themselves. For while it is possible for an outsider to build a man's (sic) house, an outsider cannot give a man pride and self-confidence in himself as a human being. Those things a man has to create in himself by his own actions. He develops himself by what he does; he develops himself by making his own decision, by increasing his understanding of what he is doing and why; by increasing his own knowledge and ability, and by his own full participation – as an equal – in the life of the community he lives in. (p. 302)

When we look at the literature for these terms, the first thing we should do is to distinguish teacher development from teacher training.

The term 'teacher development' ... was coined in the 1980s as something separate and different from 'teacher training' (TT), and in reaction against over-rigid, over-behaviouristic models of teacher training. The distinction is not just one of initial pre-service (training) versus continuing in-service (development). Today, the two terms are often used with more specific, contrasting meanings, implying differing approaches to the nature of professional learning, and carrying socio-political connotations. (Ur, 1997)

Ur (1997), in distinguishing teacher development from training, states as follows:

TT is based on a set syllabus and has a course structure and system of assessment. In TD there is no pre-set syllabus, time-structure or external assessment. The teachers themselves decide what and how they want to learn, get together to do research and share experience and knowledge, and they evaluate the results themselves. (p. 1)

Nunan (1990, p. xi), in the preface of his book, suggests moving from a “teacher training” perspective to a “teacher education” perspective and recognises that effective teaching involves a higher level cognitive process which cannot be taught directly. And teachers can be developed in case of involving them in “developing theories of teaching, understanding the nature of teacher decision making, and strategies for critical self-awareness and self-evaluation” (Nunan, 1990, p. xi).

In Roberts’ (1998) and Higgins & Leat’s, (1997) wordings, teachers are seen as “horses for courses”; their needs and involvement vary within a group and also in the individual, which is quite natural. And the challenge of a teacher development program should aim “to identify and respond to needs which will vary between individuals and which change in individuals over time” (Roberts, 1998, pp. 221-3).

In reviewing different researchers’ approaches to teacher development, we may summarize as follows:

Underhill (1991 cited in Arechaga, 2001, n. p.) defines teacher development as “one version of personal development [...] personal development as a teacher.” He sees teacher development as

the process of development as the process of increasing our conscious choices about the way we think, feel and behave as a teacher. It is about the inner world of responses that we make to the outer world of the classroom. Development [seen] as a process of becoming increasingly aware of the quality of the learning atmosphere we create, and as a result becoming more able to make creative movement by moment choices about how we are affecting our learners through our personal behaviour. (in Arechaga, 2001, n. p.)

Holloway and Long (1998, p. 536) set up a relationship between teacher development and school improvement. They express the nature of teacher development from Barth's (1990) point of view and state that "effective teacher development involves encouraging teacher initiative and helping teachers to find their own solutions to their teaching problems." He sees teacher development as "least effective when it is highly planned and structured." Holloway and Long (1998, p. 536), cites Stallings (1989) and make similar points that teachers are likely to change their behaviour and use new ideas.

The essential points, for Stallings (1989, pp. 1-2), is that teachers should

- learn by doing: try, evaluate, modify, try again,
- link prior knowledge to new information,
- learn by reflecting and solving problems,
- learn in a supportive environment: share problems and success. (in

Holloway and Long, 1998, p. 537)

Peck (1993, p. 84) points out that "teachers who become aware of their own techniques of teaching, as a result of research, may become sensitised to the relative effectiveness of different aspects of their own methodology." Pennigton

(1995) cited in Farrell (1998, p. 10) defines teacher development as “a metastable system of context-interactive change involving a continual cycle of innovative behavior and adjustment to circumstances.”

Bell and Gilbert (1996) propose that teacher development is closely associated with aspects of both personal and social development. In the area of personal development teachers have to accept that many taken for granted aspects of their teaching can and should be questioned and uncovered. Many procedures and practices are accepted as part of teaching and learning and if teachers are to be generators of new knowledge they will need to challenge the constraints that are perceived to limit possibilities.

Hargreaves and Fullan (1992) see teacher development as knowledge and skill development as well as self-understanding and ecological change. Teachers learn best “through using their own experience . . . through active involvement and through thinking about and becoming articulate about what they have learned” (Lieberman, 1995a, pp. 591-592). In teacher development, the starting point is the teachers' own experiences; new information is sought and shared rather than being imposed; it is then learnt by being reflected on, tried out, processed in terms of personal experience and finally “owned” by the teachers in whatever form they find appropriate (Ur, 1997).

The benefits and impact of a teacher development program can be interpreted by Roberts (1993) as follows:

person begins with different experiences and starting points; they are likely to have different priorities and expectations; the nature of their research will vary; and the factors helping and constraining them will vary

depending on their school setting and their relations with colleagues, among other things. (p. 1)

Development implies change for better. What is noticable is not to adopt better teaching practices for better and effective teaching, but to involve change in teachers' perceptions. In teacher development, there is a complex emphasis on the development of the whole person rather than just the teacher. Teachers, as individuals, actively construct and test their own representations of the world and teachings, then fit them into their personal framework. Their learning involves relearning, reorganisation of personal theories, and making meaning of knowledge. The meaning of new input in the personal framework, or new knowledge, is matched with the prior internal input. Matching confirms or discredits existing representations, then if there is a mismatch s/he revises her representations of the world to incorporate the new information. Change occurs as we accommodate new information, as confirmed or challenged by our interactions with knowledge or with others (Roberts, 1998, pp. 23-4). "There is no intellectual growth without some reconstruction, some reworking" says Dewey (1938, p. 64 quoted in Roberts, 1998, p. 23).

Oberg and Underwood (1992, p. 163) state "the theory that we thus create is not separate from our practice, either as source or product. It is simply how we speak of what we do when our actions are in tune with our intentions." As to Wright (contributed in Richards & Nunan, 1990, p. 82), "a primary goal of all teacher development programs is to link theory and practice." A key feature of research and commentary on teacher development is this active involvement of teachers in the planning and working through of the development activity; it seems crucial that there should be conscious involvement and collaborative

learning on the part of all concerned. The reason for this researcher for using action research methodology lies in that idea. Wright (in Richards & Nunan, 1990) considers this as “a higher-order goal” but mentions the failures. Criticizing the overall approach to such programs, he says “they are top-down, replete with content in the form of raw and unprocessed theory” (p. 82). Some reasons for the failures are mentioned as “overemphasis on teaching techniques.” The cause may lie in the lack of appeal to the participants’ apprehension of the relationship between theory and practice derived from their own experience.

Bell and Gilbert (1994) conclude from their research that teacher development is a social activity which should be theorised in terms of social constructivism, and argues that social interaction promotes learning of socially constructed knowledge and personal construction of meaning. Their emphasis on teacher development as a form of human development (Bell & Gilbert, 1994) requires teacher development programmes to include social, professional and personal development which this researcher agrees with totally.

From the above approaches to teacher development, we understand that the term has been described in different ways and each has different concern/s. The researcher agrees with the above concerns but asserts that teacher development should be viewed from a constructivist approach. It seems crucial that there should be conscious involvement and should have two sides; personal and professional development of teachers. We agree that in a constructivist teacher development approach, teachers are provided with the opportunity to construct their own knowledge and given responsibility for their own learning in a supportive environment. Such teacher development

programs encompass the kinds of learning experiences that contribute to the development of teachers over the course of his/her career and empowers them to be autonomous learners (Howe & Stubbs, 1996). It maintains high standards of teaching and support teachers' professional learning and change in their social environment. Professional development involves the acquisition of knowledge, that is, learning by teachers and its systematic and objective application in classroom settings. "Professional development requires teachers to articulate their own theories in use, to make explicit their practical knowledge, and engage in action research to learn and improve teaching" (Carr & Kemmis 1986 cited in Ling, 2002, p. 34).

Therefore, we assume that teacher development should derive from the notion of teachers as "reflective practitioners" (Schön, 1983) (which will be discussed in the section "Reflective model and PCT") and places teachers at the centre of the process as the owner of the process in which one assesses and reassesses his/her own practice (Thomson & Holloway, 1997).

2.1.2 Why In-service Teacher Development is Imperative

In today's world, educational reform efforts and the rising expectations from education have increased enormously for students, and consequently, for teachers. In response to these reform initiatives, educators are asked to master new skills and abilities to change their practice (Corcoran, 1995).

Today's language teachers face increasing challenges from all their students and the changing world within society. Improving a school's condition is on one hand and giving better education to students is on the other hand. While some reforms are needed, better student learning relies on teachers and

their skills. Student achievement is directly related to the quality of teaching and standards. As Sparks and Hirsh (2000) point out “ A body of research shows that improving teacher knowledge and teaching skill is essential to raising students performance ... What teachers know and can do directly affects the quality of student learning” (p. 4).

Lieberman and Miller (1999) assert that

Teachers engaged in reforms are involved in two enormous projects.

They are reinventing school and they are reinventing themselves. The social realities they face are very different from those they have come to know and understand in the past. (p. 19)

Given the changing conditions and expectations in the field of language education, opportunities for teachers to develop personally and professionally and grow as a language teacher are imperatives. Teachers are expected to be well prepared to be able to satisfy the needs of education. For the challenging standards, they are needed to develop their knowledge for changing conditions and expectations. The question here is not whether in-service teacher development is necessary; rather, whether it should be about teachers' learning and change, their personal and professional development and its value for children and the nation.

- **Teachers' Change**

Teacher development is currently the major tool for implementing educational change. However, no matter how carefully planned, change cannot be expected to be long-lasting without a commitment from the teachers to be lifelong learners (McLaughlin & Marsh, 1978 in Roberts, 1998). In line with the

theoretical framework of this study, we will discuss teachers' change from constructivist point of view, and will consider the issues from this broad perspective.

Teachers have different personalities, needs, decision making styles, verbal intelligence, pedagogical beliefs and professional ambitions (Rowe & Sykes, 1989; Smylie, 1988). "Teachers teach in the way they do, not just because of the skills they have or have not learned" (Dillon & Maguire, 2001, p. 8). The ways and strategies they teach are grounded in their willingness to keep up with the changes occurring in the country as well.

Change is part of the teaching-learning process that cannot be avoided. Change is desired in language teaching and education because the central aim of change in education is the improvement of students learning. However, changes modified and imposed from outside will not necessarily be recognised, understood or desired by all teachers (Eraut, 1986).

In teacher development programs, the aim is to change teachers. However, change is not viewed as a modification of behaviour but it refers to as teachers' making coherent sense of personal meaning regarding innovations. That is, change is a learning process (Fullan, 1993). Garner (1996) proposes a cyclical paradigm: to learn is to change; to change is to create; and to create is to learn. Furthermore, change should be desired and brought into reality. For making desired change become reality, teachers should act. "Ensuring such actions requires systemically planning, implementing and evaluating strategies ..." (Guskey & Huberman, 1995; Fullan, 1993).

In a general sense, in the early stages of response to change, there is a need for information about how the innovation will affect individuals personally

(*self*); later, individuals need both time to practice the change even as they manage it (*task*); and finally, individuals will be interested in refining what they are doing to better meet the needs of their students (*impact*) (Fullan, 1993). These change-related concerns describe the process that teachers go through as they take on something new. Naturally, individuals will go through these stages at different rates. Change in practice requires change in behaviour, skills, attitudes, beliefs, and frequently, ways that people work with one another collaboratively. Each one of these is a kind of innovation in itself. Any innovation, such as performance assessment, can serve as a starting point. For the sake of success, facilitators can use certain guidelines for the kind of information and support individuals or groups will need at different points

Fullan (1991) asserts that an individual's involvement with and commitment to change is motivated largely by an individual's subjective understanding of the meaning of change. Within this *subjective reality*, individuals have to decide "what's in it for them" and how they will deal with this new opportunity. It is the transformation of subjective realities, or the establishment of a new meaning or relationship to the change, that is the essence of any substantive change process (Fullan, 1991).

Sometimes subjective meaning can be mediated by dealing with the objective reality of the change (i.e., what the change really is, how it relates to current practice, and what its effects will be). On the one hand, there is the individual and his or her personal being; on the other hand is his or her professional life and responsibilities. Somewhere within this framework, change lives or dies.

The most important elements in change, according to Fullan (1994, p. 1), are as follows:

- Change is a process, not an event. While mandates have a role, it is the long-term process of engaging and supporting people working with change that will make the most difference.
- A variety of roles play a part in any change process. These roles can add up to consultative and interactive processes that support not only a specific change, but strategies for any change.
- Change is a highly personal experience; people respond to change differently.
- People go through developmental stages related to the self, to management of task, and to the refinement of change in relation to student results. Understanding these stages will help facilitators address individual needs and interests, as people work with a specific change.
- Change involves adaptations in behaviours, practices, skills, and often beliefs about what is important and valuable. People often experience initial work with change as a loss of what they do well. Finding ways to combine their areas of strength with what is new will promote comfort with change.
- Teachers are guided by a practicality ethic. They want to know that a change has practical outcomes for themselves and for their students.

So, as to Fullan, the process of change in teacher development involves three phases: initiation-planning, implementation, and continuation (institutionalization) (see Huberman & Miles, 1984; Fullan, 1991 and Guskey, 1996).

Teachers' change is about moving from thought, feelings and an understanding of teaching and learning into action and practice (Fullan, 1982). Teachers are a product of two kinds of change expertise; *content* and *process*. The characteristics of teachers' change include need, clarity, complexity, and quality, according to Fullan. *Need*; for decisions about innovation or change direction, *clarity*; for the issues of the significance of change, *complexity*; for difficulty and extent of change required of the individuals responsible for implementation (Fullan, 1996, p. 275), and *quality*; for implementing the importance of evidents (Fullan, 1996, p. 276).

Learning and change, from constructivist psychology, is an active and constructive process in which the learner is building an internal representation of knowledge, a personal interpretation of experience. In this process, how teachers learn, one of the aims of this study, is that

- teacher learning ... is determined by each person's developing perception of him/herself as a teacher ...,
- input ... is essential in learning to teach but it is filtered and personalised by each teacher learner ...,
- personal theories ... develop in a complex, evolutionary manner in response to incidents and experiences in working life ...,
- [teachers'] personal theories are either confirmed or challenged by the reactions of others ...,
- ... change in assumptions will arise when [teachers] experience a gap between what they hope to achieve and what they are achieving in class; or between what we think is going on and what we find is actually

the case; the confrontation of discrepancy is the starting point for change.

- Self-awareness (uncovering personal theories) is a prerequisite to change in established patterns of perception and behaviour.
- Deep change in teachers will be accompanied by strong feelings, not all necessarily negative, but in need of expression and acceptance by others.
- The provider needs to understand how teachers and learners perceive their own experiences. (Roberts, 1998, pp. 308-9)

2.1.3. Conceptualisation of Teacher Development

There are many approaches in terms of the concept of teacher development models. The conceptualisation of teacher development, according to Higgings and Leat (1997) can be categorised as to their intent

Some are **descriptive** and seek only to document the difference between teachers of different expertise (Novice to Expert models, e.g. Leinhardt, 1988, Livingstone & Borko, 1989). Others are **explanatory** and attempt to explain why teachers develop as they do as in the literature on images and autobiography (e.g. Knowles, 1992). (p. 307)

Burton and Mikan (edited by Edge & Richards, 1993, p. 115) mention "the teacher-as-researcher movement promotes on-site research." They see language teachers' professional development in action research methodology.

Arechaga (2001) takes Wallace's (1991) models of teacher development; namely: the craft model, the applied science model, and the reflective model. And he adheres to the last model since they believe that reflection guides future

action. Rankin (1999, p. 23) mentions action research as “reflection-based, action-oriented, and cyclical” and indicates that “action research,” “reflective practice,” and “teacher research” are roughly synonymous.

2.2 Theoretical Framework for the Research Design

We argued in the previous chapter that teaching is a demanding and complex profession. The current rapid development in information technology has influenced the settings and the goals of traditional classes. Didactic lecturing has lost its importance and both teachers and students have become more central. Constructivist learning environment and problem-based learning have gained importance. Teacher education is apparently not meeting its responsibility to prepare teachers for their changing role as facilitators of learning with new technology. Stenhouse once said, “It is teachers who, in the end, will change the world of the school by understanding it” (cited in Rudduck, 1988). Therefore, teacher development programs should aim to identify and respond to individual needs with an attempt to improve language teaching. However, most of teacher development programs fail to promote change as they only focus on ready-made solutions for pre-determined problems (Swan, 1993).

In the previous chapter we concluded that teacher development is a process of learning and change through problem solving activities. Yumru (2000, p. 22) asserts that “development implies learning, changing one’s personal constructs (both thought and feeling), attitudes, and the values underlying one’s strategies and actions.” This issue leads us to the approach–

the constructivist view. The first principle of constructivist framework is to understand individual conceptual change. It explains “personal differences in perception and behaviour and indicates the need for providers to relate all new learning to teachers’ prior practices and beliefs” (Roberts, 1998, p. 43).

Because, constructivist view suggests that new information in teacher learning will be “personalised”: processed and interpreted by teachers according to their current personal theories and then tested against direct experience through social interaction with others. And the second principle of constructivism is that “reflection on experience can lead to personal change ...” (Roberts, 1998, p. 44). Bell and Gilbert (cited in Roberts, 1998, p. 44) state that

Learners can reconstruct their knowledge through reflection. Meta-cognition is an important part of learning and can involve reflection on the degree of understanding or the nature of the thoughts

Besides these, as Sendan (1995, p. 35) suggests that there is “a high degree of consistency between reflective models, particularly Schön’s model of professional development and Kellyan theory” (such details about reflective thinking and constructivism, falling inside the scope of this study as well, have been very well documented in Sendan, 1995).

The question then is: how can facilitators in teacher development programs work with interested parties to bring about change through constructive theories of social change? How can we implement teacher learning, teaching, and change? How can teachers contribute their ideas through action? The answer to these questions lies in “action science” and its methodology of “action research.” In order to understand what distinguishes action research from other types of research, we should express that primarily

its focus is to turn people involved into researchers-people learn best, and more willingly apply what they have learned, when they do it themselves. It also has a social dimension-the research takes place in real-world situations, and aims to solve real problems. Finally, the initiating researcher, unlike in other disciplines, makes no attempt to remain objective, but openly acknowledges their bias to the other participants. In the following section, we will discuss action research methodology in order to see the surface on which we worked.

2.2.1 Action Research

In this part of the chapter, action research-as a methodology-will be discussed in detail in light of interrelated theories. Action research models, approaches and teacher learning in the action research cycle upon which the researcher built this study will be presented (Dewey, 1938; Lewin, 1948; Burch & Miller, 1977; Piaget, 1970; Cohen & Manion, 1980; Kolb, 1984; Bell, 1987; Kemmis & McTaggart, 1988; Argyris & Schön, 1989; Elliott, 1991; Limerick, 1991; Zuber-Skerritt, 1992; Hopkins, 1993; Lomax, 1995; Carr, 1995; McNiff et al., 1996; Noffke, 1997; Rankin, 1999; Rainey, 2000; Krough, 2001; Dick, n. d. and Lindhult, 2001). Lewin's "action science," Kolb's "experiential learning" and Kemmis's "action research as critical education science" will be explored thoroughly for relevance to our action research study. They have been widely used in formal courses as a means to teacher development. We see action research as a vehicle in teacher-curriculum development in which implementation and outcomes are assessed and mentioned, in INSET on teacher learning within curriculum projects (Day et al., 1987; Day, 1990), teachers' monitoring and evaluating their work (Day, 1990; Elliott, 1991;

Shulman, 1988; Somekh, 1993; Richard & Lockhart, 1994), for school restructuring (Jacullo-Noto, 1992; Lieberman, 1988; Oja & Smulyan, 1989; Sagor, 1992). Methods and issues in uncovering tacit beliefs are discussed in Denicolo and Pope (1990), Day et al., (1990), Pennington (1990), Diamond (1991), Yaxley, (1991), Morine-Dershimer (1993), Calderhead and Gates (1993), Richards and Lockhart (1994). Certain authors acknowledge the importance of "teachers as reflective practitioners" (Schön, 1983, 1987, 1992; Zeichner, 1983; Gore & Zeichner, 1991; Brookfield, 1995; Day, 1999).

The linking of the terms *action* and *research* highlights the essential features of this method. Simply put, action research is *learning by doing*-a group of people identify (a) problem/s, do something to resolve it, see how successful their efforts are, and, if not satisfied, try again. While this is the essence of the approach, there are other key attributes of action research that differentiate it from common problem-solving activities that we all engage in in everyday life.

Kiraly (2001) mentions that

Unlike an experimental method involving the testing of hypotheses, the qualitative action research approach begins with the observation of a problem, in this case the apparently de-motivating and counterproductive results of an objectivist epistemology as embodied in conventional instructional performances. The analysis of the problem against the background of the theoretical perspectives offered by research on constructivism outside of the translation domain led to tentative solutions to the problem, which in turn were implemented, observed, and

analyzed. In the process, innovative solutions to local problems that might serve an exemplary role for other [...] teachers emerged and were refined. From this type of research perspective, rather than looking for valid and reliable results (verifiable reflections of truth), the researcher attempts to come up with trustworthy and substantiated, but nonetheless subjective results. (p. 51)

Learning which is experiential, reflective and reflexive is fundamental to this approach. Learning by doing recognises that people learn through the active adaptation of their existing knowledge in response to their experiences with other people and their environment. Cohen and Manion (1980, p. 178, cited in Curtis, 1998) defined action research as “an on-the-spot procedure designed to deal with a concrete problem located in an immediate situation.” Besides its practicality, the process of building on experience is a natural one for most people and action research provides a framework for formalising and making this process more effective.

Rainey (2000, p. 68) discusses the two views of action research which are commonly found in ELT literature, one of which is directly relevant to our study. The first view is seen as “action research for teachers’ professional self development”—involves teachers working on a small-scale interventionist level to improve their own practices. And the second one is “collaborative action research”—resulting in critical reflection and for the purpose of change not just in the immediate environment, the classroom in the case of education, but in the wider community. Wallace (1991), supporting the first view, recommends action research as “[it] should be addressed to practical problems and should have practical outcomes ... (and) ... is simply an extension of the normal reflective

practice of many teachers, but ... is slightly more rigorous" (Wallace, 1991, p. 56). However, the second view is much closer to the origin of action research. It is put forward in the field of education and in the social sciences (Lewin, 1948, 1952) for the reasons mentioned in the following quotation. Rainey (2000, p. 68) states that

The latter 'saw action research as a spiralling process of reflection and enquiry with the potential to become emancipatory and empowering' (Burns, 1999, p. 27). This view is endorsed by Carr & Kemmis (1986), who 'are not satisfied with a conception of action research in which teachers simply identify a problem and solve it – they wish to see the development of a cyclical programme of reform whose results are reflected on and further refined and developed in collaborative investigative communities' (Crookes, 1993, p. 135). It was such investigative communities that Freire (1970), Stenhouse (1975) and Crawford-Lange (1982) had in mind in their quest for 'reflection and action ... in order to reform' (White, 1988).

Arhar and Buck, (2000, p. 337) suggest that "action research involves reflecting on one's own professional and personal role in the classroom. Without such critical self-reflection, we as teachers may interpret our classrooms and make decisions based on our own unquestioned assumptions."

"Within all the definitions of action research, there are four basic themes: empowerment of participants; collaboration through participation; acquisition of knowledge; and social change" says Masters (1995). The process that the researcher goes through to achieve these themes is a spiral of action research cycles consisting of four major phrases: planning, acting, observing and

reflecting (Zuber-Skerrit, 1991, p. 2). We try out some ideas in response to question/s, systematically observe and collect evidence as a consequence of those actions, and analyse and reflect on the evidence. Action research follows this same cyclical process of acting, observing, and critical reflection on the consequences of our actions.

The theoretical case is argued (and recognised in this study, as in Roberts, 1998, p. 42) in Carr and Kemmis (1986), Whitehead and Lomax (1987) and Elliott (1991), which will be discussed in the following section.

2.2.2 History of Action Research

We recognise three generations in action research history; first, Collier, Lewin and Dewey, next; Stenhouse, Elliott and Adelman, and later, Carr and Kemmis. Action research can be traced back to the early works of John Dewey in the 1920s and Kurt Lewin in the 1940s. As a term, firstly, it is used in a social action context. In 1945, John Collier, the Commissioner of the U.S. Bureau of Indian Affairs, advocated action research as a democratic way to improve the living conditions of native Americans (Kemmis & McTaggart, 1988b). It was later developed, described and conceptualized by Kurt Lewin (1946, 1948) as a systematic method for groups of people directly affected by planned social changes to take responsibility for planning those changes themselves and systematically evaluating their effects. And it was further developed by Kolb (1984), Carr and Kemmis (1986) and Kemmis and McTaggart (1982, 1988). They described the use of action research in the field of education.

The term action research has recently become known and used in second-language teaching where language teachers became involved in. The

most important reason for this involvement was that teachers might well be doing research on issues and questions which emerged from their own immediate concerns and problems: "trying out ideas in practice as a means of improvement and as a means of increasing knowledge about the curriculum, teaching, and learning" (Kemmis & McTaggart, 1982, cited in Nunan, 1990, p. 63). Van Lier (1988) cites Cohen and Manion (1985, p. 174), who define action research as "small scale intervention in the functioning of the real world and a close examination of the effects of such intervention." These definitions bring two trends to mind; the first (the older one) finds action research equivalent to research done by "teacher-researchers," and the second (the newer one) a more progressive line in which action research is used in search of an educational practice, that is, "education and educational action research" which is emancipatory.

Teacher-researchers took the model of university-school (as research institutions) partnership. They are expected to integrate the functions of teacher and researcher by ensuring that teachers do research or collaborate with the researchers. We see a teacher research version of study in the context of research and pedagogy (Gebhard, Gaitan, & Oprandy, 1987; Nunan, 1989a, 1989b, 1990; Brindly, 1990; Allwright & Bailey, 1991). Cochran-Smith and Lytle (1990, 1993) find these works actually "published singly by university researchers and intended for academic readers" (Crookes, 1993, p. 132). The argument for teachers adopting the dual role of teachers as researchers has been made most persuasively and effectively by Stenhouse (1975), Rudduck (1988), Elliot (1991), Nixon (1981), Hopkins (1985), Somekh (1995), Rudduck and Hopkins (1985), Day (1993), McNiff (1988, 1992, 1993), Oja and Smulyan

(1989), Zuber Skerrett (1991, 1996). Stenhouse (1975) played an active role for teachers in the field of research. He concluded from his research that traditional forms of curriculum research and development did not work. He realised that, to be effective, curriculum reform had to close the gap which regularly opened up between curriculum specifications and classroom practice (Somekh, 1993). In his later studies, he said "it is not enough that teachers' work should be studied, they need to study it themselves" (p. 143). He talked about teachers "bettering" their teaching by studying their classrooms, to increase understanding of their own work.

Elliott, however, writing in 1978, claimed that "action research might be described as "reflection related to diagnosis and was happy for teachers to carry out action research themselves, or to commission someone to carry out for them" (p. 355). In his later papers, Elliott emphasises that in action research "theories are not validated independently and then applied to practice. They are validated through practice." He advises teachers to look carefully at the realities of a situation, and generate hypotheses or explanations which they could explore further, and which could lead to a general plan being constructed to enable intervention to take place with the intention of improving the practice. The action researcher, thus, is able to ready to implement the action steps and use monitoring techniques such as analytic memos, a research diary, profiles, document analysis, tape/video recordings and transcripts, outside observations, interviewing, checklists, questionnaires, triangulation, and case studies.

The second view of action research is associated with the works of Carr and Kemmis (1986) and Whitehead and Lomax (1987). Carr and Kemmis (1986), about this type of action research, state as follows:

[it] provides a means by which distorted self-understandings may be overcome by teachers analysing the way their own practices and understandings are shaped by broader ideological conditions [and] ... by linking reflection to action, offers teachers and others a way of becoming aware of how those aspects of the social order which frustrate rational change may be overcome. (pp. 179-80)

Carr and Kemmis (1983) stressed reflexivity in action research by bringing the "self" of the researcher into the action and developing the idea of a "self-reflective action research cycle." They described action research as follows:

[it is] a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their practices, their understanding of these practices and the situations in which these practices are carried out. (p. 162)

Kemmis and Carr emphasised the practitioner-research aspect. That is, the action researcher would be investigating his or her own practice, not commissioning someone else to do so, and would make the action both participatory and collaborative. They consider action research as a "social process" (p. 182) and the researcher as "participant" while maintaining collaborative control of process (p. 166). So, "theory and practice" on one hand, and "individual and society" on the other hand are at the heart of action research, a participatory and collaborative process of "self-reflection." They assert that "this dialect could be resolved in the notion of the self-critical community of action researchers who are committed to the improvement of education, who are researchers for education" (p. 184). Carr and Kemmis (1986) conclude by teachers' knowledge:

by emphasising reflexivity, knowing by doing, thinking critically, and being aware of the historical location and social context of educational acts; teachers are advised to problematise their practice from a cerebral perspective, but the recognition of the part played in that practice by the emotions is completely ignored. (p. 44)

Lomax incorporated elements of Lewin's action research, but distinguished action research as a method of educational research based on values rather than based on a method of social science. Whitehead (1993), on the other hand, developed the concept of "living educational theory" which is based on "epistemology of practice" (pp. 67-77). He moved the argument from "what is happening in the classroom that I wish to change" to "why should this be a problem for me." He set action research in the context of the professional development of the teacher. We believe that the asking of questions about our practices—the unsettling of the "knowledge-in-practice" (Schön 1983, p. 62), is crucial to the process of action research.

Parallel with the above discussions in action research studies in the 1990s, second language education witnessed studies of teachers who engaged in practice-based or action research projects (O'Brien et al., 2000, p. 44). Such ventures were proposed as a form of teacher development grounded in practice and linked with a movement towards reflection putting into practice (Allwright and Bailey, 1991; Wallace, 1991; Allwright, 1993; Edge & Richards, 1993). Second language teacher-educators have been influenced by Zeichner (1983) in America, Carr and Kemmis (1986) in Australia, Hopkins (1985) and Elliott (1987, 1991) in Britain, and Schön (1983, 1987) in the U.S.

In terms of the different forms of teacher action research, we can consider the tools provided for taking a critical look at professional work. We may summarise that

- **Narrative inquiry** (Connelly and Clandinin, 1988) consists of narrative accounts of significant moments in our past. This helps us to understand the values and provide insight into current decision-making. It allows us to explore our personal histories (in Newman, 2000).
- **Traditional teacher research** (Rudduck and Hopkins, 1985) includes documentary evidence of journal entries, works of students, policy documents from schools, newspaper accounts etc...The point here is to understand the various influences on decision making as teachers and professionals (in Newman, 2000).
- **Case study** (Winter, 1986) draws attention to learning from situation in terms of how to act to discover the kinds of decisions made and to think about the theoretical reasons for making them. Evidence can be personal reflections, lesson plans, and interviews with students or colleagues. It involves the examination of the individual student or a small group of participants (Newman, 2000).
- **Critical inquiry** (Symth, 1992; Boomer, 1987) reveals how political issues can be explored from the outset. It has a more political flavour from the outset. The evidences can be policy documents, newspaper sources and students' works (in Newman, 2000).
- **Reflective Practice** (Schön, 1983, 1987) offers ways of exploring one's own professional work. The teacher researcher, here, attempts to make his/her own understanding problematic to himself or herself. There is no pre-

conceived-state-of-affairs waiting to be uncovered through inquiry (in Newman, 2000).

Specific tools have been incorporated into action research methodology from other disciplines as aids to reflective processing such as autobiography (Day, 1985), journals (Tripp, 1988; Holly, 1989), image making (Clandinin, 1989), metaphors (Munby and Russell, 1989), and fictional stories (Whitehead, 1989).

2.2.3 Types of Action Research

In terms of the relationship between the models of action research, there are three main types: *technical* (scientific), *practical* (deliberative) and *emancipatory* (critical).

- ***Technical (or scientific)***

The goal of this type of action research is the testing of an intervention based on a pre-specified theoretical framework. The researcher is questioning whether the selected intervention can be applied in a practical setting (Holter & Schwartz-Barcott, 1993). The researcher acts as an outside expert who aims to gain the practitioner's interest in the research, and agreement to assist in the implementation of the intervention (Holter & Schwartz-Barcott, 1993; Kemmis & McTaggart, 1988, p. 12). Carr and Kemmis (1986) see this type of action research as "amateur research conducted under the eye of university researchers." Technical action research seeks to deliver an effective practice "through the practical skill of the participants" (Grundy, 1982). This model provides teachers less space for improvement since it requires a technical research expert and deals with using methods with a social science paradigm.

It is related to solving immediate pressing problems and likely to be oriented towards the development of pedagogical strategies, skills and tactics (Leitch & Day, 2000).

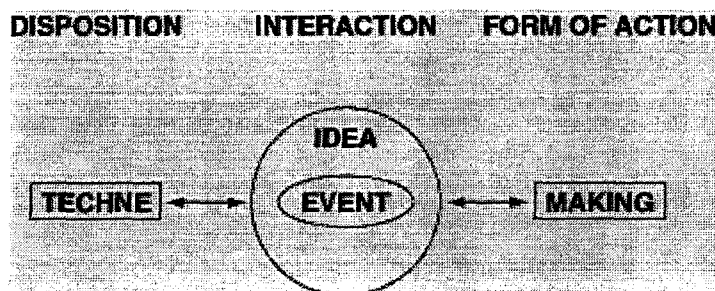


Figure 2.1 Technical Action Research Model (Grundy 1982, p. 355, cited in Masters, 1995)

- ***Practical (or deliberative)***

This type of action research involves the researcher and practitioner coming together in order to identify potential problems, underlying causes and possible solutions or interventions. The researcher encourages participation and self-reflection of the practitioner (Holter & Schwartz-Barcott, 1993; Kemmis & McTaggart, 1988, p.12). This type of action research is "... along the lines advocated by Donald Schön (1983) in the U.S ..." (Kemmis, 1993). Elliott's (1991) revision of Lewin's (1952) "self reflective spiral of cycles": observe-reflect-plan-act-evaluate, falls into this type. The goal is to improve the quality of action, and to improve practice through the application of practical judgement.

Action initiates reflection ... He emphasises the recurrent feature of "reconnaissance", in the action research cycle, which involves analysis and reflection of the situation, rather than merely fact-finding. His elaboration of techniques to gather evidence for reconnaissance and monitoring (e.g., diaries, analytic memos, running commentary) seems to

demonstrate the value to learning and change of more introspective, self-reflective kinds of analysis. However, closer examination reveals that there are for largely task-oriented purposes. He cautions that although "the process of analysis is an endless one, in action research (it) must be interrupted for the sake of action. (Elliott cited in Leitch & Day, 2000, p. 184)

"Practical action research fosters the development of professionalism by emphasising the part played by personal judgement in decisions to act for the good of the client" (Grundy 1987, p. 54). This model of action research "promotes autonomous, deliberative action - ..praxis" (Grundy 1987, p. 154).

Grundy's (1982, p. 357) model for this type of action research is detailed below.

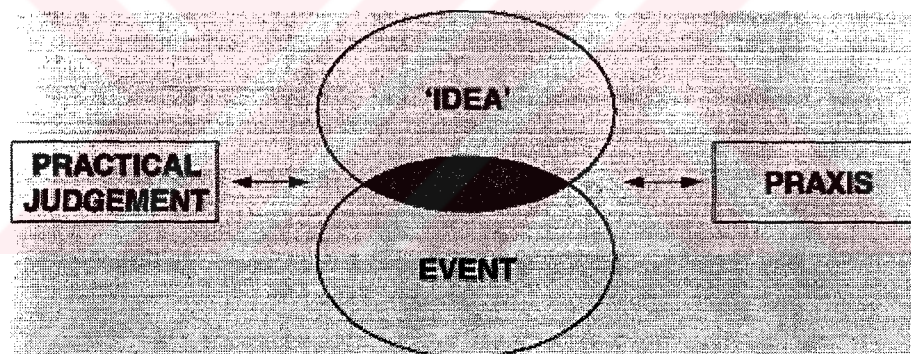


Figure 2.2 Practical Action Research Model (Grundy 1982, p. 357, cited in Masters, 1995)

- **Emancipatory (or Critical)**

This type of action research involves all participants equally with no hierarchy existing between the researcher and practitioner. The researcher aims to decrease the distance between the actual problems identified by the practitioner and the theory used to explain and resolve the problems. The

researcher also facilitates reflective discussion with the practitioner to identify underlying problems and assumptions. This assists the researcher to become a collaborative member of the group (Holter & Schwartz-Barcott, 1993). For Kemmis (1993) this type of research is connected to social action. It is critical in the sense of being an activist. It aims to create a form of collaborative learning by doing. It helps people to understand themselves as the agents as well as the products of history. Carr and Kemmis (1986) view it as a “collective, collaborative activity engaged in by a self-critical community of practitioners, who are committed to transforming the educational system in line with rational and democratic principles by researching their own practice” (cited in Leitch & Day, 2000, p. 185). There are two goals for the researcher using this approach, one is to increase the closeness between the actual problems encountered in a specific setting and the theory used to explain and resolve the problem. The second goal, which goes beyond the other two approaches, is to empower participants in identifying problems and making them explicit by raising their collective consciousnesses (Hughes, 2001).

All emancipatory action research, and many practical action research projects are participatory.

Grundy (1982, p. 363) has a diagrammatic representation of the above discussion on emancipatory action research type (Masters, 1995).

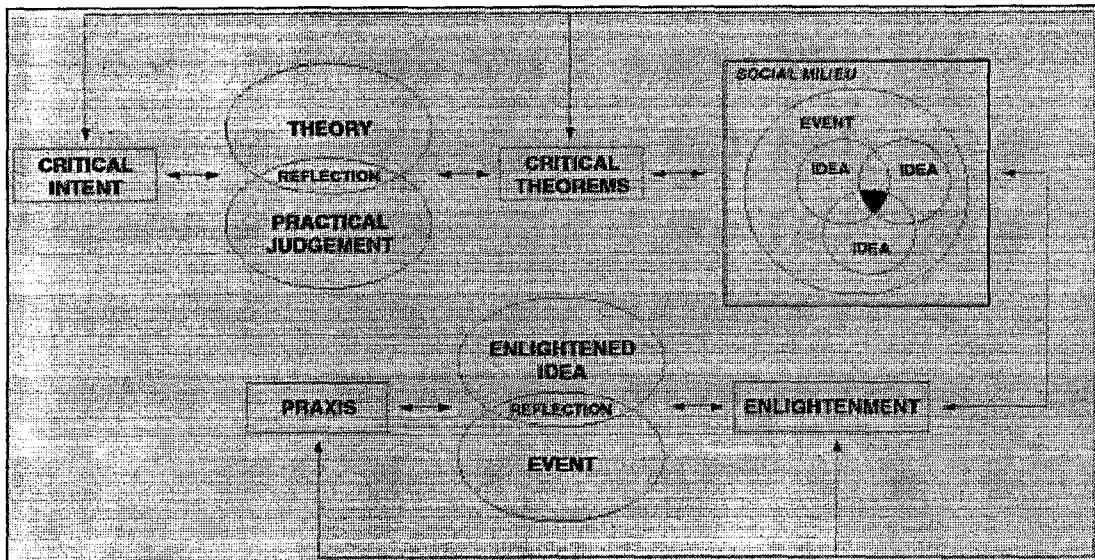


Figure 2.3 Emancipatory Action Research Model (Grundy, 1982, p. 363)

Drawing upon the above argument on the types of action research which has also been adapted by Carr and Kemmis (1986, pp. 31-40), we see that although they said this did not constitute a hierarchy, there is little doubt from their writing that they viewed emancipatory action research as far superior to practical action research, which in turn, is superior to technical action research. A similar artificial hierarchy has been constructed to distinguish between theory, practice and methodology; where theory is viewed as having epistemological and generalisable significance, where practice is seen to have a situated significance and where methodology is reduced to a technical means to an end.

Since action research primarily intends to provide a framework for qualitative investigations by teachers and researchers in complex situations, in the following sub-sections we will discuss the interrelated theories, starting with Lewin's action science and later Kolb's experiential learning theory.

2.3 Lewin's Field Theory in Relation to Action Research

"There is nothing so practical as a good theory" (Zuber-Skerritt, 1992, p. 89). This quotation shows Lewin's integration of theory and practice, inquiry and social problem-solving. The theories and methods which Lewin developed to investigate social change are directly relevant to education. Studies conducted on learning and teaching situations, and process and change may benefit from his holistic, phenomenological approach to research as "action research" (Zuber-Skerritt, 1992, p. 89). After the positivist and phenomenological paradigms, he proposed a third paradigm, "action science," "where social scientists would work with interested parties to bring about change, through this social perspective of his practical work and theorising" (Roberts, 1998, p. 40). To Lewin, social and personal change were interdependent (Roberts, 1998). How he conceptualises change and action is explained best in Roberts (1998) as follows:

change in self-concept as inseparable from effective action. This implies that problems have to be tackled in terms of practicalities and also the belief of participants about themselves and others: effective action is not merely a matter of adopting better teaching practices, it also involves change in our perspective. (p. 42)

Kurt Lewin is generally credited as the person who coined the term "action research." "Field' is Lewin's fundamental construct" says Zuber-Skerritt, (1992, p. 90). Understanding Lewin's field theory and action science are important for this study because of the social perspective he brought to the teacher-learning arena. In his field theory, a "field is defined as "the totality of coexisting facts

which are conceived of as mutually interdependent" (Lewin 1951, p. 240). Kurt Lewin had a profound impact on a generation of researchers and thinkers concerned with group dynamics. Brown (1988, pp. 28-32) argues that two key ideas emerged out of field theory that are crucial to an appreciation of group process: *interdependence of fate, and task interdependence*.

For Kurt Lewin, behaviour was determined by the totality of an individual's situation. Individuals were seen to behave differently according to the way in which tensions between the perceptions of self and of the environment were worked through. The whole psychological field, or lifespace, within which people acted had to be viewed, in order to understand behaviour. Individuals participate in a series of life spaces, and these were constructed under the influence of various force vectors (Lewin, 1952). In the case of education, this refers to teachers's life space, their students and their teaching environment. The action research process for Lewin is a problem solving process. Zuber-Skerritt (1992, p. 94) states that "Lewin, like Kelly, regards the process of research (scientific as well as action research) and knowledge creation as identical to the process of learning and problem-solving in everyday situations." To him, participants learn from action research

by means of concrete evidence to the effect of their actions: If we cannot judge whether an action has led us forward or backward, if we have no criteria for evaluating the relation between effort and achievement, there is nothing to prevent us from coming to the wrong conclusion and encouraging the wrong work habits. Realistic fact finding and evaluation is a prerequisite for any learning. (Kemmis cited in Roberts, 1998)

To him, learning is “best facilitated in an open environment where researchers and practitioners discuss the data in feedback sessions and where there is dialectical tension and conflict between immediate, concrete experience and analytic detachment” (Zuber-Skerritt, 1992, p. 94).

In some of Lewin’s earlier work on action research (e.g., Lewin & Grabbe, 1945) there was a tension between providing a rational basis for change through research, the recognition that individuals are constrained in their ability to change by their cultural and social perceptions, and the systems of which they are a part. Having correct knowledge does not of itself lead to change, attention also needs to be paid to the matrix of cultural and psychic forces through which the subject is constituted (Winter 1987, p. 48).

His approach involves a spiral of steps, “each of which is composed of a circle of planning, action and fact-finding about the result of the action” (Lewin, 1948, p. 206). The basic cycle involves the following:

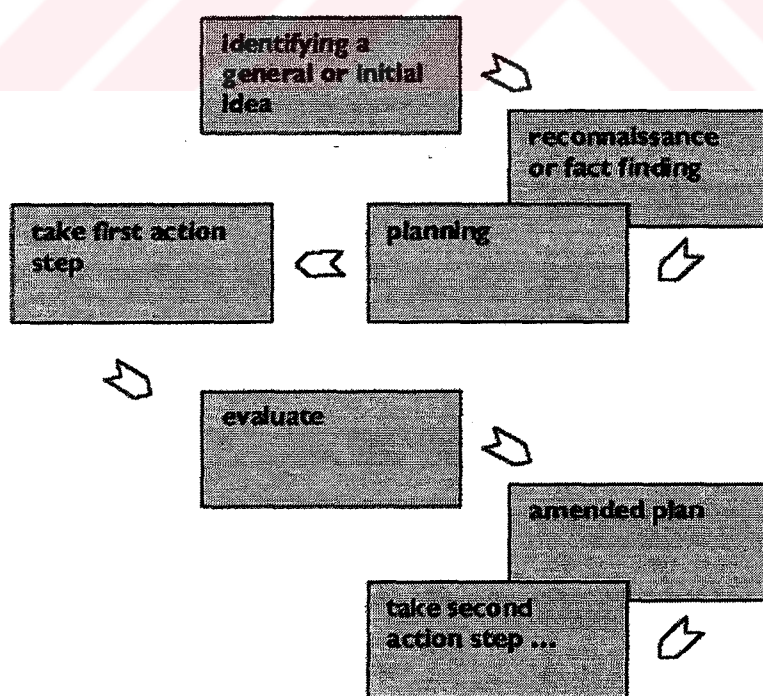


Figure 2.4 Lewin's Initial Action Research Cycle

The first step then is to examine the idea carefully in light of the means available. Frequently more fact-finding about the situation is required. If this first period of planning is successful, two items emerge: namely, "an overall plan" of how to reach the objective and secondly, a decision in regard to the first step of action. Usually this planning has also somewhat modified the original idea. (Lewin, 1948, p. 205)

The next step is "composed of a circle of planning, executing, and reconnaissance or fact finding for the purpose of evaluating the results of the second step, and preparing the rational basis for planning the third step, and for perhaps modifying again the overall plan" (Lewin, 1948, p. 206). What we can see here is an approach to research that is oriented to problem-solving in social and organizational settings, and that has a form that parallels Dewey's conception of learning from experience.

Roberts (1998) lists the following elements of "an action research projects," as does Lewin:

- A problem of real meaning to all participants,
- Their commitment to its resolutions,
- Involvement of participants at each stage as a prerequisite for change,
- Participants taking responsibility for change and for monitoring of the change,
- An emphasis on group processes and group decision-making at each stage in order to clarify problems and to commit participants to action,

- A role for a scientist trained as a group facilitator and a theorist, working in dialogue with participants. (p. 41)

Another matter of interest to us is the role of the researcher in Lewin's conception. We employed the same approach in line with Lewin's understanding which is that

the role of the researcher is not to design and control the research project and to treat the teachers as 'subjects' providing feedback for their own research purposes and interests, but to act as facilitators of learning and research, as educational advisor, resource persons, and equal members of a cooperative team of action researchers, each of whom is a personal scientist. (Zuber-Skerritt, 1992, p. 96)

2.4 Kolb's Experiential Learning Theory in Relation to Action Research

The consistent theme in all Kurt Lewin's work, according to David A. Kolb (1984, p. 9) was his concern for the integration of theory and practice. We see "matching an individual's learning style preference to learning activity and/or the trainer's preferred learning style to develop weaknesses in an individual's learning style" (in Kolb, 1984), and "modifying the preferred learning style of the trainee's," advocated by Kolb (1984), Honey and Mumford (1992), and Rush and Moore (1991). Similar arguments have been posited by Witkin et al. (1977), and Kolb (1984) to suggest modifying the trainer's learning style may help them better meet the needs of different students (in Duff, 2000).

Kolb's work, which is based on constructivist assumptions and which is directly related to teachers' learning, has been taken into account in this study.

Kolb, in this study, is accepted as one of the best-known-representatives of the constructivist learning theory.

One of the basic references we draw this study on is constructivism which facilitates learner's own active contribution to his/her learning process in a social context where the learner constructs his/her own knowledge by combining new information and experiences to his/her existing knowledge structures. We advocate in this study that the constructivist theory best explains Kolb's model of learning because it is more complex. The reason for not adopting a behaviourist theory is that it really involves only two steps, the stimulus and the response, and it acknowledges only one type of learner. While Kolb's theory involves four steps: the absorption of knowledge, the forming of a reality, editing the reality, and applying the new knowledge to life. It also recognizes four different learning styles, which is more of a constructivist view.

In this model, information can never be transferred from one person to another, because information will be interpreted differently by individual learners in different contexts. Kolb's model is based on three major traditions: "Dewey (1938) from the philosophical perspective of pragmatism, Lewin (1952) from the phenomenological perspective and Piaget (1970), the developmental psychologist and genetic epistemologist, from the rationalist perspective" (in Zuber-Skerritt, 1992a, p. 99). Reed (1998) reviews Kolb's experiential learning and clarifies that

Experiential learning is one of three learning theories (the others being behavioral and cognitive learning). The Lewin model emphasizes two dialects: (1) the conflict between concrete experience and abstract

concepts and (2) the conflict between observation and action. Dewey's model (similar to Lewin's) highlights an iterative relationship between impulse and ideas. Piaget's model (likely the most well-known) involves four major stages of cognitive growth from birth to about age 16. His ideologies of learning were based on accommodation and assimilation of concepts and schemes to real world experiences. Most views point to the theory that learning is a holistic process involving some sort of adaptation and transaction with the environment. Knowledge is discussed as a transformative process in that it is created and re-created. In the summary, it was hypothesised that understanding learning involves understanding the nature of knowledge and vice versa.

(n. p.)

The action research process begins with a general idea that an improvement or change in the researcher's area of work is desirable. A group then forms to clarify the mutual concern which has been identified. The group makes the decision to work together and to focus its strategies for improvement on the "thematic concern" (Hart & Bond, 1995, p. 54; Kemmis & McTaggart, 1988, pp. 8-9).

Kolb (1984) extended this model by offering an understanding of the action research cycle as a learning process, whereby people learn and create knowledge by critically reflecting upon their own actions and experiences, forming abstract concepts, and testing the implications of these concepts in new situations. Kolb's theory of experiential learning (Kolb, 1984), which is based on constructivist assumptions, was used as a starting point because of its consistency with the stages of cognitive growth and development. The gist of

the theory is that learners progress through a learning cycle in which experience leads to observation and reflection, which then leads to concept formation.

According to this view, action research is critical in the sense that teachers not only look for ways to improve their practice within the various constraints of the situation in which they are working, but are also critical change agents of those constraints, and of themselves. It is reflective in that teachers analyse and develop concepts and theories about their experiences.

The development of teachers' personal theories, Kolb's "experiential learning" is validated or invalidated by experience, with the understanding that "learning is the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). Kolb's experiential learning suggests a structure for the design of teacher learning, cycles that integrate experience, reflection and discussion, access to public knowledge and opportunities for experiment-based on the principles; a) direct personal experience necessity for conceptual development, b) reflection on this experience, c) abstracting theory and explaining cases, and d) ongoing experiential cycle.

Kolb's learning cycle is represented by the diagram (see Figure 2.5) (adapted from Gibbs, 1988).

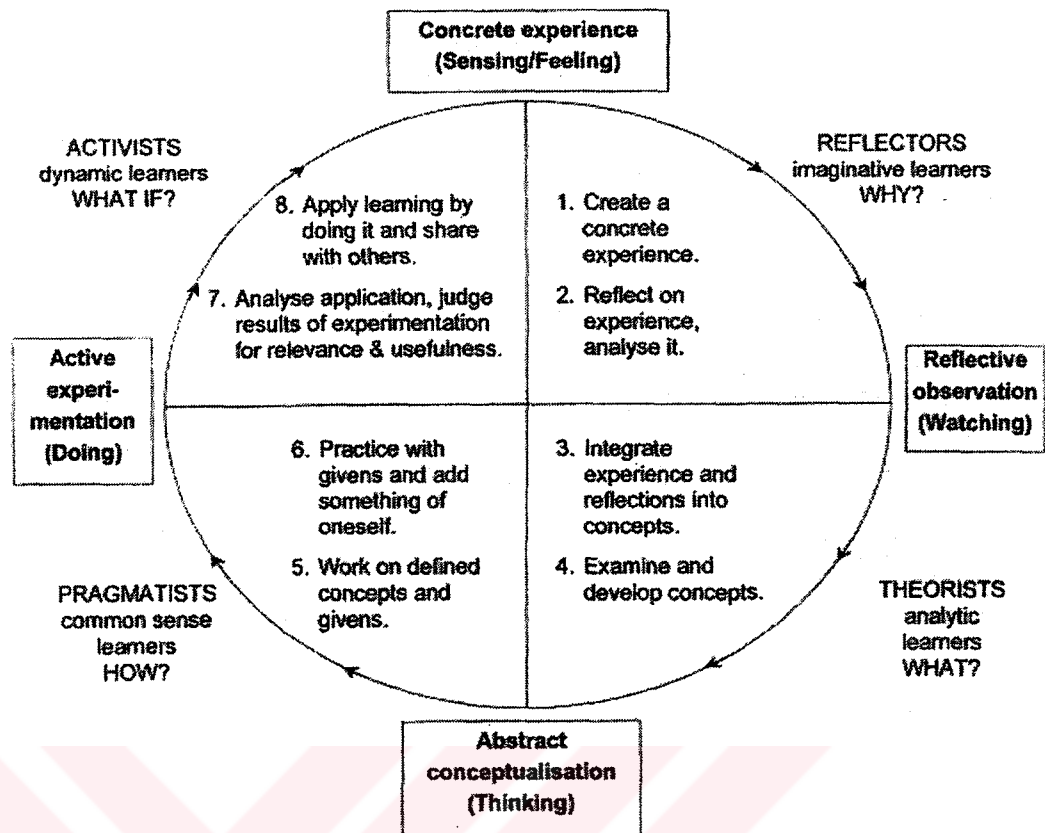


Figure 2.5 Kolb's Learning Cycle

Kolb further refined the concept of reflection by dividing it into two separate learning activities, perceiving and processing (Algonquin, 1996). He added another stage, called *abstract conceptualization*. While in the critical reflection stage, one may ask questions about the previous experiences, in the abstract conceptualization stage, the answers are tried to find. So, we make generalisations, draw conclusions and form hypotheses about the experience. The action phase, then, becomes a phase of *active experimentation*, where we try the hypotheses out.

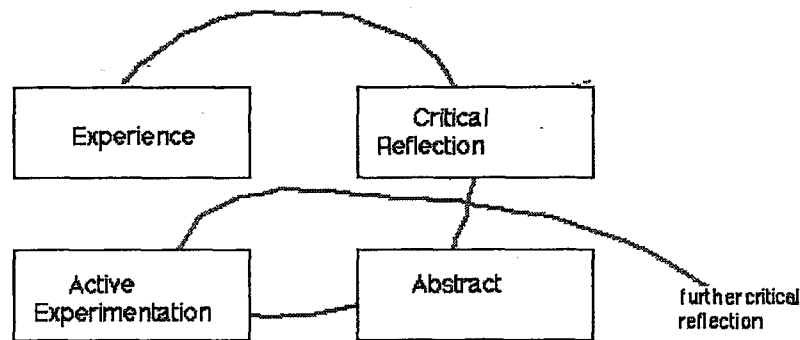


Figure 2.6 Experiential Learning Cycle

Kolb went on to develop the learning style inventory to help learners understand their strengths and weaknesses. The inventory measures the learner's preferences in the four stages learning. Preference of one or more stages over others indicates a preferred learning style. The learning styles are:



Figure 2.7 Experiential Learning Styles

Not all writers agree with Kolb's theory. Rogers, for example, argues that "learning includes goals, purposes, intentions, choice and decision-making, and it is not at all clear where these elements fit into the learning cycle" (Rogers, 1996, p. 108). Habermas, on the other hand, has proposed that there are at least three kinds of learning and that we have different learning styles for each (Rogers, 1996, p. 110).

Whatever their limitations, by presenting a model of experience in a scientific form, he has helped move educational thought from the focus of the instructor back to the learner. As many of the major contributors to the field

have pointed out, experience has once again become a viable topic of discussion (Brookfield, 1990; Cross, 1981; Jarvis, 1995; Knowles, 1990; McKeachie, 1994).

Firstly, Kolb's model of learning, highlighted with the traditions he built his understandings on-Dewey, Lewin and Piaget's learning models in relation to action research, will be more highlighted in the following subsections. This will contribute to our study more light and will clarify the frame of our action research design. Secondly, teachers benefit from reflection within the experiential learning experience. Because this issue is another integral part of this study, we will refer to *reflection as a part of experiential learning* in the next section. Kolb's contributions cannot be underestimated. In this study, teachers as learners reconstructed their knowledge through reflection. Meta-cognition was an important part of their learning. The situated cognition focused on both the process of learning and its context and this was most effective since the learners were actively involved in the learning process. The context was relevant to them, so they were involved in reflection on the degree of understanding or the nature of their thoughts. Ostermann and Kottkamp (1993) note that "while experience is the basis for learning, learning cannot take place without reflection. Conversely, while reflection is essential to the process, reflection must be integrally linked with action" (p. 47).

2.4.1 Dewey's Model of Learning in Relation to Action Research

Dewey was engaged in elaborating a constructivist theory of knowledge for a lifetime. His notion of reflective thinking, that is, "problem framing, identifying alternative solutions and choosing from options according to the outcome we want and the situation at hand" (Roberts, 1998, p. 47) provides a

kind of reflection, which is both appropriate in ELT and directly relates to this study. Vanderstraeten and Biesta (n. d.) suggest that

Dewey's constructivism has neither to recur to an objective world nor postulate an apriori equipment of subjects with appropriate structures of knowing. Social interaction enables (and forces) everyone involved in it to pay attention to the contribution made by the other participants. To be able to continue the social interaction, one has to observe and reckon with the objects and inferences which others construct. (n. p.)

His ideas on progressive education and reflective thinking have influenced thinking, schooling and professional education throughout the twentieth century (Roberts, 1998). Dewey's work was an attempt to reconsider the relationship of organism and environment. Dewey stressed the continuous, intrinsic connection of organism and world on the level of action, and introduced the notions of transaction and experience. He believed that there is no reality which is not affected by this experience. Every act (also an act of knowing) creates a new reality. Dewey offered, in outline, firstly a positive view about the relation of knowledge to action. Vanderstraeten and Biesta (n. d.) comment that "in our view, Dewey's argumentation enables us to take both the subjective (individual) and intersubjective (sociocultural) dimensions of the construction of knowledge into account within the same constructivist framework" (n. p.). They continue saying that

Dewey's work is, on the one hand, directed against traditional epistemological positions, of idealist and realist origins alike. Dewey focusses on a critique of their common foundations, viz the split between object and subject, reality and knowledge, world and consciousness. His

work lays, on the other hand, the foundations of a constructivist epistemological program, which starts from the relation of knowledge to action. These foundations have proven to be secure, as recent neopragmatic research also testifies. Moreover, they enable an evaluation of the arguments brought to the fore in discussions between radical constructivist and socio-cultural approaches to teaching. Dewey's transactional theory of knowledge makes clear that the discussions in the educational realm *continue to live on the split of reality and knowledge*. To a large extent, constructivist 'paradigms' to teaching are still tied to a traditional, dualistic framework. (n. p.)

Knowing is not a process of registration or representation, but one of intervention. Knowledge does not refer to an external, independent and objective reality, but always participates in the action. Dewey's argument about the function of knowledge and reflection-to ensure the continuity of action-brings the crucial role of time to the fore. "Knowing consists of operations that give experienced objects a form in which the relations, upon which the onward course of events depends, are securely experienced" (1929, LW4, p. 235 in Vanderstraeten & Biesta, n. d.). Knowledge is not concerned with experienced objects as such, but with future experiences which might ensue from the present situation (in Vanderstraeten & Biesta, n. d.).

Reflection is a secondary phenomenon related to the level of action.

Sendan (1995, p. 36) states that:

both Kelly and Schön draw on Dewey's (1933) work. They both refer to resolve one's conflicting beliefs and values; to the reformulation and testing of one's implicit understandings; and to making sense of

experiences. Furthermore, they both conceptualise development as a personal matter; they view individuals as responsible, active agents of their own development.

According to Dewey (1916, p. 326 in Vanderstraeten and Biesta, n. d.), "reflection arises because of the appearance of incompatible factors within the empirical situation... Then opposed responses are provoked which cannot be taken simultaneously in overt action." Roberts (1998) suggests that

In his famous work, *How We Think* (1910), he lays the ground for later progressive and person-centered models of learning by characterising reflection as disciplined, conscious, explicit and critical thought contributed to the intellectual and moral development of the person. He defines it as: "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends. (p. 48)

His description integrating personal experience, feeling, thinking, and his reflective cycle in a classroom have been very well detailed and presented in Roberts (1998, pp. 48-9). He (1998) suggests that

to Dewey, reflection contributes to personal growth because it frees us from a single view of a situation which would restrict how we define problems and so the resulting solutions. Reflection enables us to reframe problems in a variety of ways which therefore allows a wider range of possible solutions, and contributes to change our perspectives. (p. 49)

The notion of reframing was developed later by Argyris and Schön (1974) and Schön (1983). As Roberts (1998) indicates Dewey, prefiguring humanistic and

constructivist views of learning, puts emphasis on personal responsibility, the personalisation of knowledge by experience and the creativity of mental processes.

2.4.2 Piaget's Model of Learning in Relation to Action Research

The Swiss developmental psychologist, Jean Piaget has been a dominant figure in cognitive developmental psychology since his emphasis was upon the constructive nature of the learning process. His main interest mainly was in the way people come to know things as they developed from infancy to adulthood. His theory was on "action-based," concerning more with the process of learning than what is learned. It suggests that "we come to know things as a direct result of our personal experiences, but that we make sense of those experiences at different stages of our lives" (Williams and Burden, 1997).

Piaget (1971a) says that

Perception itself does not consist in mere recording of sensorial data, but includes an active organization in which decisions and pre-inferences intervene and which is due to the influence of perception as such on this schematism of actions or of operations. (pp. 86-87)

The basic constructivist assumption would read this strong emphasis as follows: "Perception, learning, and memory are taken to be processes which are dependent on a person's active construction of sensory input. The person can perceive, know, and remember only through imposing her systems of constructs on to the input-associated events" (Mancuso & Hunter, 1985).

Williams and Burden (1997), later, explains how Piaget saw *cognitive development* as follows:

[it is] essentially a process of *maturation*, within which genetics and experience interact. The developing mind is viewed as constantly seeking equilibration, i.e. a balance between what is known and what is currently being experienced. This is accomplished by the complementary processes of *assimilation* and *accommodation*. Put simply, assimilation is the process by which incoming information is changed or modified in our minds so that we can fit it with what we already know. Accommodation, on the other hand, is the process by which we modify what we already know to take into account new information. Working in conjunction, these two processes contribute to what Piaget terms the central process of cognitive *adaption*. (p. 22)

For both Piaget and Kelly, the central unit of discussion is the mobile schema or the personal construction, respectively, and it is moot to discuss the issue of whether or not the schemata or the constructions do, indeed "make contact with 'real' events" which provide the stimuli that guide behavior (in Mancuso & Hunter, 1985). Piaget spent most of his professional life accumulating support of the view that a person's construction system develops through a stage-wise progression.

Piaget's stage theories and those who adopted his theory have been criticised by those who have studied teachers' learning and thinking. The past studies which dealt with teachers' coping strategies have used Piaget's model of discrete sequential stages in children's conceptual development to justify the studies. Roberts (1998, pp. 71-2) points out that "they argued that teacher learning is essentially sequential in nature, passing through a series of stages of concern from a concern with survival; to a focus on teaching situations to a

focus on the learner, and learner differences.” Accordingly, as Roth (cited in Roberts, 1998, p. 72) indicates “it was argued that it was necessary to resolve needs at one stage to be able to progress to the next, as in Piaget’s model of child development.” We accept that the learning process is complex and non-linear but essentially cumulative and multidimensional. Conversely, stage theories are too simplistic, tend to address one’s own priorities and puts forth certain principles for each stage (Roberts, 1998).

Additionally, Piaget attempted to show that the stage-significant developments which the person had undergone would radiate throughout a person’s construction system so that, for example, the effects of the child having achieved *mobile schemata* would be seen not only in the child’s functioning with number sets (Piaget, 1952a), but also would be seen as the child functions in a rule-governed social situation (Piaget, 1932 in Mancuso & Hunter, 1985).

2.5 Kemmis’ Critical Education Theory

Kemmis and his associates (and Zuber-Skerritt, 1992, as well, drawing heavily upon Kemmis’s work and especially relating to European literature) come from a Deakin approach and have thoroughly described the use of action research in teacher education (both pre and in-service) in which a theoretical framework is based on Lewin’s field theory. Lewin rejects positivism and scienticism with Habermas. Both of them maintain that knowledge in the social sciences must be practical. Theory must improve practice in order to be valid and useful (Zuber-Skerritt, 1992). Kemmis and his colleagues followed this line

of argument. Kemmis, for that reason, preserved the Lewinian concept of a spiral of cycles of planning, acting, observing and reflecting. "New in this definition is the notion of strategic action. This means an action is strategic when it is consciously and deliberately undertaken, rather than on the basis of custom, habit, unreflective perception or hearsay" (Zuber-Skerritt, 1992, p. 110).

Moreover, both teacher research as an "insider," and qualitative inquiry as the appropriate paradigm for its application are incorporated by action research into a conceptually useful research model as suggested by Kemmis and McTaggart (1988). Carr and Kemmis (1986) draw a very important philosophical distinction between "subjective knowledge," or knowledge which is based on opinion influenced by individual' passions and "personal knowledge." To them, "knowledge which justifies practical action is not just the knowledge of principles, but also a kind of personal knowledge which is recognised in, and rationally developed through, action research. It is neither 'subjective' nor 'objective' knowledge, but 'personal knowledge'" (Zuber-Skerritt, 1992, p. 110). "Personal knowledge is acquired through rational reflection on experience. It is judged by the criterion of authenticity" (Zuber-Skerritt, 1992, p. 110).

Kemmis and McTaggart (1988), Grundy and Kemmis (1982) and Carr and Kemmis (1986) accept that there are four steps of action research which are linked dynamically in a cycle; plan, act, observe, and reflect. The benefit gained from action research is the improvement of practice as well as the improvement of understanding of practice by the practitioners and the improvement of the situation in which the practice takes place (Zuber-Skerritt, 1992). The main feature of this kind of action research are: "participation and collaboration; action-orientation; critical function; and a spiral of cycles of

planning, acting, observing and reflecting" (Zuber-Skerritt, 1992, p. 111).

"These four dynamic, cyclic aspects of action research are similar to that of Kolb's cycles of concrete experience, reflective observation, abstract conceptualisation and active experimentation" says Yumru (2000, p. 36).

Rankin (1999) states for action research in foreign language classes that

Kemmis and McTaggart emphasize that ... collaboration is crucial; the teacher should work together with colleagues to formulate a plan of action and profit from their collective experience. The planning stage is also where the relevant research literature—quantitative and qualitative—can provide useful ideas and suggest new connections. The plan may take the form of new tasks, or a new way of introducing or sequencing them; new configurations for small-group work; a more consciously, controlled ratio of teacher-talk to student-talk; new ways of dealing with texts or listening comprehension or writing skills; strategies for error correction; or any one of an almost infinite set of possibilities. (n. p.)

"Action in the sense intended here is deliberate and controlled—it is a careful and thoughtful variation of practice, and is critically informed" (Kemmis & McTaggart, 1988, p. 12 in Rankin, 1999). Rankin (1999, n. p.) argues that

The starting point of AR is a classroom problem or simply a desire on the teacher's part to improve learning. Having decided on the focus of the research, the teacher engages in a period of observing and reflecting, using a variety of tools—personal diaries, post-class notes, video and audio tapes, collaborator observation, and student interviews, to name the more common types—in order to view the classroom from as many perspectives as possible. The goal is to determine not only what is going

on, but also the underlying reasons for it—to discern, as Erickson suggests, between "behavior" and "action."

Kemmis and his associates call their action research emancipatory and use participatory methods to produce emancipation.

2.6 The Psychology of Personal Constructs

Personal construct psychology, or constructivism, has now been fairly widely recognised and proposed by many researchers such as Hunt, 1980; Landfield, 1980; Pope and Keen, 1981; Ben-Peretz, 1984; Pope and Scott, 1984; Clark, 1986; Oberg, 1987; Corporaal, 1991; Pope and Denicolo, 1986; Pope, Denicolo and Bernardi, 1990; Diamond, 1991, 1993; Pope, 1991; Yaxley, 1991; Mahoney, 1991; Epting and Leitner, 1992; Belleli, 1993; Myers, 1993; Pope, 1993; Pope and Denicolo, 1993; Raskin and Epting, 1993; Saka, 1995; Sendan, 1995; Neimeyer and Mahoney, 1995; Fransella, 1995; Christie and Menmuir, 1997; Sendan and Roberts, 1998; Telles, 1998; Stevens, 1998; Warren, 1998; Yumru, 2000; Fung, 2000; Salmon, 1995; Butt, 1998a, 2000; Johnson et al., 2000; Raskin and Lewandowski, 2000; Neimeyer and Raskin, 2000, 2001; Roberts, 2000; Raskin, 2002; Bell, 2002; Neimeyer and Bridges, 2003.

"Personal construct psychology has also made some headway in education" (Brown & Ritchie, 1982; Fransella & Thomas, 1988; Pope & Keen, 1981; Thomas & Harri-Augstein, 1985, cited in Solas, 1992, p. 209). This theory has been employed in some approaches to teacher education (Ben-Peretz, 1984; Diamond, 1985; Yaxley, 1991) and its influence in ELT can be

seen in the works of Belleli, 1993; Myers, 1993; Sendan, 1995; Saka, 1995; Sendan and Roberts, 1998; Yumru, 2000; Higgins and Moseley, 2001. Pope and Keen (1981) applied personal construct theory to education, and other researchers have used their ideas in specific areas such as secondary teacher training (Diamond, 1983, 1985), staff-student interaction (Kevill & Shaw, 1980), course evaluation (Kevill et al., 1982), higher education (Zuber-Skerritt, 1988), primary science teaching (Shapiro, 1996), primary technology teaching (Stein et al., 1998), and student teachers' thinking (Sendan, 1995; Sendan & Roberts, 1998).

Constructivism has been used extensively in both studying and supporting learning processes (Pope & Shaw, 1981; Pope & Keen, 1981; Shaw & Gaines, 1992), and computer-based tools have been developed to elicit, model and compare construction systems (Shaw, 1980; Shaw & Gaines, 1989; Gaines & Shaw, 1992). Such tools which can be run on personal computers, have been used to support collaborative learning (Shaw & Gaines, 1992), and the tools have been extended to support collaborative elicitation and analysis over local area networks (Shaw & Gaines, 1991; Shaw & Gaines, 1992).

Botella (1995, n. p.) states that "personal construct theory—the attempt to subsume Kelly's theory under the notion of constructivism and, at a more superordinate level, to relate constructivism to the notion of postmodern thought." He relates the personal construct theory with constructivism and asserts that

The link between PCP and constructivism was first explicitly discussed by Mahoney (1988), together with his own definition of constructivism.

Some personal construct theorists have also found meaningful to refer to

PCP as a constructivist theory (e.g., Feixas and Villegas; 1990, Neimeyer; 1993), and even the *International Journal of Personal Construct Psychology* changed its name in 1994 to the *Journal of Constructivist Psychology*. Since constructivism is becoming a widely accepted—and even trendy—term in mainstream psychology (see Bruner, 1990), subsuming Kelly's theory under that term can have far-reaching implications for the future of PCP. Some of these implications are summarized in the significant question posed by Chiari and Nuzzo (1993, July); is PCP a now obsolete forerunner of constructivism or rather its avant-garde? (n. p.)

Botella (1995, n. p.) states that

Personal Construct Psychology (Kelly, 1955/1991) can be defined as a constructivist theory to the extent that one accepts the characterization of constructivist metatheory discussed above. Kelly's theory of personal constructs was the first attempt to devise a theory of personality and psychotherapy based on a formal model of the organization of human knowledge. Kelly's philosophy of constructive alternativism asserts that reality is subject to many alternative constructions, since it does not reveal to us directly but through the templates that we create and then attempt to fit over the world (Kelly, 1955/1991).

Constructivism has played important roles in education since it attempts to understand people with an approach of "there must be something more than emotion, thought, and behaviour that go to make up the man." Focusing on a more educational description of constructivism, the knowledge or mental constructs learners bring with them to education and their meaning is intimately

connected with experience (Andersen, 1992) and the context in which it occurs (Carr et al., 1994). It requires pre-existing knowledge to interact with the new experiences (Osborne & Freyberg, 1985; Carr et al., 1994). Constructivism accepts that each learner has different experiences and prior knowledge, so, they construe different meanings in the same learning context (Pope & Gilbert, 1983; Osborne & Freyberg, 1985; Fensham et al., 1994). One of the most helpful interpretations of personal construct theory is offered by Salmon (1988) in teaching. She argues that "teachers are indivisible from what they teach." Teachers, like learners, reshape their ways of understanding, their knowledge structures and the meanings that they attribute to events and ideas as a result of interactive process. They continually reconstruct their views of each other. Kelly proposed that people organize their experiences by developing bipolar dimensions of meaning, or personal constructs. Kelly (1955) asks us to switch our perspective of human behaviour. Instead of thinking about "man-the-biological organism," as the behaviourists recommended, he suggests that we think in terms of "man-the-scientist" who continually puts his/her constructions to the test. When he uses this term, Kelly is speaking of the typical behaviour exhibited by a typical individual, not the behaviour of that special class of individuals "who have publically attained the stature of scientists" (Bodner, Klobuchar & Geelan, 1999). They continue their comments as follows:

Kelly describes what it means to think about individuals in terms of their scientist-like aspect by arguing that "It is customary to say that the scientist's ultimate aim is to predict and control." He continues building his model of "man-the-scientist" by noting that each of us shares the scientist's goal of trying to predict and control the course of daily events.

In doing so, he argues, each of us develops theories, tests hypotheses, and weighs experimental evidence about the sequence of events that mark our lives. (p. 4)

The constructivist theory accepts the reality, and finds the relationships between people's thoughts and the universe, which are not static but changing continually.

Kelly argues that we each create our own ways of seeing the world; the world does not create them for us. Each of us builds our own constructs, tries them on for size, and eventually revises them. These constructs are sometimes organized into systems or groups of constructs. But the entire process of building, using, and revising constructs is driven by one primary goal: to help us predict, and therefore possibly control, future events. (p. 4)

Constructivism as it originated in Kelly's experiences claims that individuals should be encouraged to see their hypotheses, or representational models. Arguing that each person develops a unique repertoire of constructs based on his/her experience of the world, it assumes that the events we face today are subject to as great a variety of constructions as much as our understanding enables us to.

Personal construct theory is a theory of individual and group that has been used extensively in knowledge acquisition research to model the cognitive processes of human experts. It uses the metaphor of a knowledgeable individual as a "personal scientist" (Kelly, 1955) who continually puts his/her constructions to the test. It originated in Kelly's experiences which claim that

individuals should be encouraged to see their hypotheses, or representational models.

Personal construct psychology can be seen to be an heir to European logical positivism and American pragmatism, taking an alternative path to behaviorism that is similar in many respects to what later became termed *cognitive science*. (Shaw & Gaines, 1992)

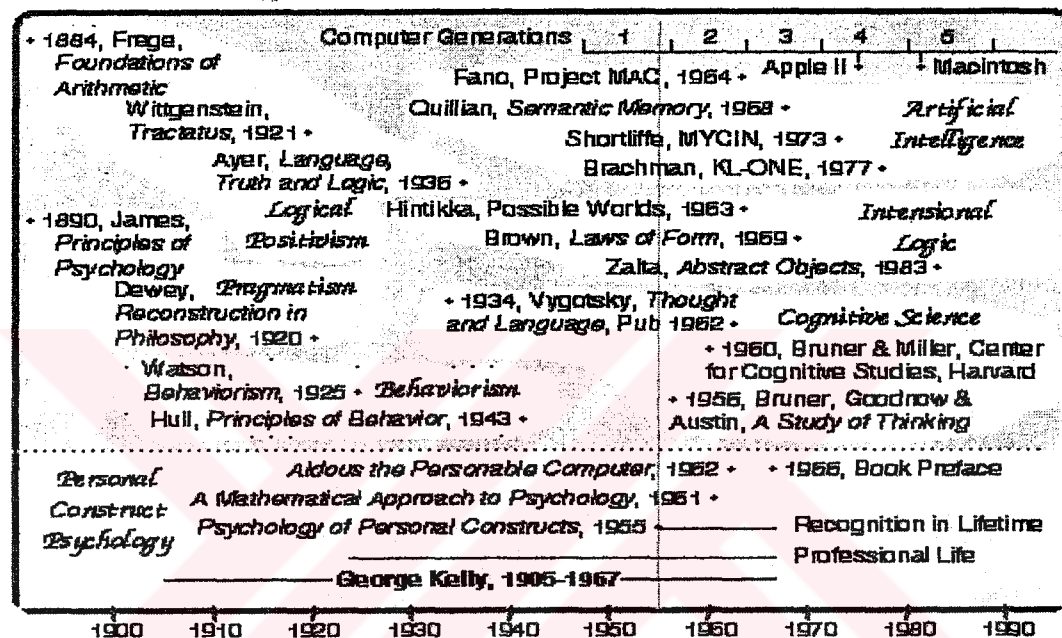


Figure 2.8 The Intellectual Setting of Personal Construct Psychology

Figure 2.8 (taken from Shaw & Gaines, 1992) attempts to encapsulate the historic forces at work in psychology, logic, cognitive science and artificial intelligence before and after Kelly's work.

Kelly's (1955) original contribution to personal construct psychology is that he provides a systematic delineation of the process of construing through his "*fundamental postulate: A person's processes are psycho-logically channelized by the ways in which he anticipates event*" (p. 9). The fundamental assumption upon which Kelly's theory is built begins by noting that

the emphasis of this theory is on the individual and that individual's psychological processes or behaviors. Kelly argues that these processes operate through a network of pathways, which is flexible and frequently modified, but which is also structured and both facilitates and restricts the individual's range of action. He compares these pathways to grooves cut out by the mechanism one adopts for realizing his or her objectives. The goal of this mechanism is to predict and control by anticipating future events. Zuber-Skerritt (1992) sums up the fundamental postulate as follows:

[it] states that people's behaviour in the present is determined by the way they anticipate events in the future through the use of personal constructs in order to forecast events (theory building) or to evaluate previous forecasts and their validity or efficiency (theory testing). (p. 59)

Kelly formally elaborated upon the fundamental postulate with eleven corollaries, which define the role of constructs. The corollaries can be put into four groups according to Bell (2002):

- Those to do with individual and social lives: *individuality, sociality, and commonality*,
- Those to do with a person's actions: *construction and choice*,
- Those to do with the structure of the construct system: *dichotomy, range, organization and fragmentation*
- and those to do with change in the system: *modulation and experience*. (p. 1)

If we take the corollaries one by one, we may state as follows:

1. Construction Corollary: *A person anticipates events by construing their replications.*

This corollary holds that an individual constructs his/her anticipations using his/her past experiences . That is an individual expects things to happen as they have happened before. Through construct formation, an individual construes reality (Sendan, 1995).

Kelly uses 'construing' to describe a process by which an individual interprets events – and, in particular, their repetition – in terms of characteristic elements that emphasize both similarities and contrasts. He notes: Once events have been given their beginnings and ending, and their similarities and contrasts construed, it becomes feasible to try to predict them, just as one predicts that a tomorrow will follow today. What is predicted is not that tomorrow will be a duplicate of today but that there are replicative aspects of tomorrow's event which may be safely predicted. (Bodner et al., 1999, n. p.)

2. Individuality Corollary: *Persons differ from each other in their construction of events* (Kelly, 1963, p. 55).

Each person's construct system is unique. Because the fundamental postulate emphasizes the ways in which a person anticipates events, it provides the groundwork for individual differences (Bodner et al., 1999). Or, as Kelly (1955, in Bodner et al., 1999) states it

People can be seen as differing from each other, not only because there may have been differences in the events which they have sought to anticipate, but also because there are different approaches to the anticipation of the same events. No two people can play precisely the same role in the same event, no matter how closely they are associated.

This does not mean that these individuals cannot share experiences. Although there are individual differences in the construction of events, people can find common ground by construing the experiences of their neighbours.

Constructs can differ in their position, focus, range or permeability within the hierarchical framework, and in the strength of their relationships with other part of the system (Zuber-Skerritt, 1992).

3. Organization Corollary: *Each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs.*

Kelly uses the term *construction system* to describe what happens when a series of constructs with similar, but not identical, elements are grouped to minimize incompatibilities and inconsistencies between their elements to avoid making contradictory predictions.

4. Dichotomy Corollary: *A person's construction system is composed of a finite number of dichotomous constructs.*

There are two notions implicit in the notion that a construct system is comprised of dichotomous constructs. One is that constructs are bipolar, the other is that elements may only be located in one (and only one) of the two classes, if this construct is relevant. The former notion is fundamental, the latter of somewhat less importance, and perhaps we will dispose of this first (Bell, 2002).

5. Choice Corollary: *A person chooses for himself that alternative in a dichotomized construct through which he anticipates the greater possibility for the extension and definition of his system.*

Choice is an essential element of personal construct psychology. We have no active participation in our lives without it. A person makes his/her choice of a dichotomous construct (e.g., security versus adventure) in such a way as to enhance his/her anticipation of events. (Zuber-Skerritt, 1992)

6. Range Corollary: *A construct is convenient for the anticipation of a finite range of events only.*

Kelly defines a *range of convenience* as that portion of the real world over which a given system or theory provides useful coverage. Within this corollary, Kelly states that each construct has a limited applicability (range of convenience), which implies that no construct is useful for everything. The terms broad or narrow can depend on a person's experiences and beliefs. As Bannister and Fransella (in Sendan, 1995) states:

Kelly used the term "range of convenience" to indicate those things for which a construct was specifically developed. Thus the construct "honesty", for some people, has its "focus of convenience" keeping your fingers off other people's property and money. The "range of convenience" is all those things to which people might eventually find the construct applicable. Thus for some people "honesty" may eventually be used in relation to political honesty, sexual honesty, aesthetic honesty and so forth. (p. 28)

7. Experience Corollary: *A person's construction system varies as he successively construes the replications of events.*

Bodner et al., (n. d.) states that

This corollary rings a responsive chord in light of what we know about other forms of the constructivist theory. Kelly argues: "The succession of

events in the course of time continually subjects a person's construction system to a validation process. The constructions one places upon events are working hypotheses, which are about to be put to the test of experience. As one's anticipations or hypotheses are successively revised in the light of the unfolding sequence of events, the construction system undergoes a progressive evolution." Kelly notes that experience isn't constituted merely by the succession of events to which one is subjected, but by the successive construing of these events. He notes that an individual can be a witness to a "tremendous parade of episodes," and yet, by failing to make something of them or waiting until they have all occurred before attempting to reconstrue them, gain little in the way of experience from "having been around when they happened.

(n. p.)

8. Modulation Corollary: *The variation in a person's construction system is limited by the permeability of the constructs within whose ranges of convenience the variants lie.*

The experience corollary states that the individual's construction system changes as the individual successively construes the replications of events. But these changes can only occur within the limits of the permeability of the constructs that form the system. According to Kelly, permeable constructs are not necessarily loose, inconsistent, or tenuous. They are permeable in the sense that they have the capacity to embrace new elements. Permeability, in Kelly's term, a degree of openness to change, the potential to countenance new features. If some parts of a person's construct system are impermeable, those parts will resist change which Kelly calls hostility.

Zuber-Skerritt (1992) states that

Kelly believes that conceptual development is an evolutionary process. Conceptual structures are groups of constructs which are independently organised substructures. These substructures are hierarchically organised at progressively higher levels of abstraction. The substructures are also functionally differentiated so that the "range of convenience" of an individual's construct system is enhanced. This means that some features or events which are viewed as inappropriate or not applicable by a construct or substructure (i.e. which are viewed as neutral or lying outside "the range of convenience") may be viewed as adequate or appropriate by other constructs or substructures on the basis of different functions. These differing substructures are hierarchically integrated in a person's construct system. The hierarchical integration enables the individual to make a wider range of cross-reference than would be possible within a very differentiated system. It is therefore an essential aspect of conceptual development. (p. 61)

9. Fragmentation Corollary: *A person may successively employ a variety of construction subsystems which are inferentially incompatible with each other.*

The fragmentation corollary explains a phenomenon that is all too common when we observe the long-term development of an individual: new constructs are not necessarily direct descendants of one's old constructs.

10. Commonality Corollary: *To the extent that one person employs a construction of experience which is similar to that employed by another, his processes are psychologically similar to those of the other person.*

The commonality corollary offsets the individuality corollary, which assumes that people involved in the same events can experience them differently because they construe them differently. The commonality corollary suggests that it would be absurd to assume that two individuals had to live through identical events to either act or think alike. Some people can tolerate more incompatibility than others, depending on the permeability of their superordinating constructs.

11. Sociality Corollary: *To the extent that one person construes the construction processes of another, he may play a role in a social process involving the other person.*

Teachers, for example, need not have the same or similar construct systems as their students, but they must be able to subsume and understand their students' construct systems in order to "interact" with them rather than "act" and teach them (Zuber-Skerritt, 1992). Anyone with classroom experience should appreciate the legitimacy of Kelly's argument. So, we may state that

if we can predict accurately what others will do, we can adjust ourselves to their behavior. If others know how to tell what we will do, they can adjust themselves to our behavior ... Understanding does not have to be a one-way proposition; it can be mutual. (Bodner et al., n. d.)

"Understanding does not mean that two individuals have the same construction system, but rather that they have made some progress toward understanding each other so that they can play roles in relation to each other" (Bodner et al., n. d.). Zuber-Skerritt (1992) summarises Kelly's fundamental postulate and its corollaries raised above as follows:

Kelly's fundamental postulate and his corollaries give a picture of the person/learner as a '*personal scientist*', with a hierarchical construction system (*organisation corollary*) which is personally unique (*individuality corollary*) and which can be explored by him/herself as well as by others (*sociality corollary*). Apart from their individuality, a group of people may be similar in terms of their construction of experience (*commonality corollary*). The development of intelligence or conceptual change depends on the permeability, ie. the degree of openness for change, of a person's constructs (*modulation corollary*) and the balance between hierarchical integration and consistency of differing constructs on the one hand and their differentiation and inconsistency (*fragmentation corollary*) on the other. Finally, a person is not predetermined in his/her thinking, but can choose alternatives (*choice corollary*). His/her construing is both cognitive and emotional; the personal construct system is a holistic entity. If any part within the system is changed, this change will have implications for other parts of the total system. (p. 58)

Kelly (1955) also explored ways of getting people to reveal their construct system. The repertory grid technique was the answer (although he originally called it the "Role Construct Repertory Test") which we will deal with in the following section.

2.6.1 Repertory Grid Method

The major methodology that we have used for the elicitation of constructs and terminology from individuals and groups is based on extensions of the

repertory grid technique originally proposed by Kelly (1955) as an empirical measurement methodology appropriate to personal construct psychology.

Perhaps the thing most associated with George Kelly is his role construct repertory test, which most people now call the rep grid. Not a test in the traditional sense at all, it is a diagnostic, self-discovery, and research tool that has actually become more famous than the rest of his theory.

(Boeree, 1997, p. 10)

Repertory grid elicits knowledge indirectly by prompting individuals for critical elements and relevant constructs in a coherent sub-domain. The repertory grid elicitation procedure has been used in teacher development programs (Diamond, 1991, 1993; Yaxley, 1991). Evaluating the effectiveness of action research for the action researchers and for teachers' professional development, Zuber-Skerritt (1992), emphasizes the role of repertory grid as follows:

I had to use a more sensitive instrument which would elicit their constructs and personal theories of professional development generally, and of action research in particular, without influencing their thinking and rating in any way. The best instrument for achieving this aim seemed to be Kelly's repertory grid technique. (pp. 67-8)

This approach has since been adopted by educators for variety of purposes (e.g., Bezzi, 1996). A key characteristic of the repertory grid is that participants consistently rate elements from their past, the same in relation to their field of interest, unless they engage in an experience that questions how they interpret that field of interest (Adams-Webber, 1982; Bannister & Fransella, 1986; Fransella & Bannister, 1977).

This methodological component of personal construct theory has been applied successfully in a range of educational contexts such as Pope and Keen, 1981; Christie and Menmuir, 1997; Telles, 1998; and Hopper, 1999.

Drawing on the work of Diamond (1991), Hunt (1987) and Pope and Keen (1981), this study uses the repertory grid as a reflective tool. Hopper (1999), for example, used the repertory grid in the field of effectiveness in teaching with an emphasis on physical educators.

Solas (1992) provided an overview of uses of the repertory grid technique, with special emphasis on its use with autobiographical approaches. Repertory grid studies of teacher and student thinking summarised in Solas (1992) are presented below.

Olson (1980) extended the use of repertory grid to help understand how teachers construed their work in relation to curriculum innovation. This study showed that the fate of curriculum change depended on the sense teachers made of it and that is, in turn, was dependent on how they construed their role in the classroom (in Solas, 1992, p. 210).

Keen (1981) "devised a system of Teaching Appraisal by repertory grid elicitation techniques (TARGET) to heighten the teachers perceptual awareness. This technology provided feedback to teachers about the unique elements of their pedagogical approach and its overall effectiveness" (in Solas, 1992, p. 210).

Kevill and Shaw (1980) used the repertory grid to make teachers more aware of their communication interactions with their students. The study served as a basis for self reflection and promoted genuine dialogue and understanding

between teaching staff and students and acted as an effective stimulus for individual change (in Solas, 1992, p. 210).

Kevill et al. (1982) looked for changes in teachers' thinking following in service courses. Teachers were required to construe their teaching situation at the beginning and end of their courses; they were provided with detailed feedback of the analysis of the changes in their grids (in Solas, 1992, p. 210). Teachers were given feedback and enabled to gain an understanding of the way event had altered their perceptions of their work a day lives. This study is similar to ours in terms of using the repertory grid as pre and post measures for eliciting teachers' constructs and giving feedback of the analysis of construct changes in their grids.

Hunt (1980) and Hunt and Gow (1984) applied repertory grids to enable teachers to identify their own implicit theories of teaching and learning. Teachers could identify their implicit matching models by describing person-environment combination in the form "if this person, then this teaching approach (in Solas, 1992, p. 210).

Pope et al. (1990) conducted a repertory grid study on teachers' thinking about their professions; it was based on the premise that an important influence on a teacher's personal practical knowledge was the way the teacher construed his/her professional role and activity. They found that teachers in the study thought themselves akin to professional social workers because they felt similar demands for emotional involvement and creativity were placed on them (in Solas, 1992, p. 210).

Oberg (1986) used repertory grid to bring the unconscious and deliberate acts which constituted a teacher's educational practice to critical awareness.

The use of the repertory grid to bring practices under conscious self scrutiny enabled teachers to theorise about their practices, revise these theories in light of practices, and transform practices into praxis (in Solas, 1992, p. 210).

Parsons et al. (1983) employed the repertory grid as a means of elaborating the implicit model of learning held by an experienced elementary school teacher. Shaw and Thomas (1982) have shown how grids can be used for similar purposes. They have illustrated the ways in which the method can be customized to help a teacher to think about the various techniques he or she uses for the transfer of learning and to organize instruction accordingly (in Solas, 1992, p. 210).

Pope and Keen (1981) evaluated the grid as a learning adjunct to training models. They used grids to encourage as well as to monitor the conceptual growth of student teachers. Diamond (1985) used a trigrid procedure to help a group of aspiring teachers become explicitly aware of their evolving associations with significant elements such as the teacher they were, the teacher they would like to be, and the teacher they fear to be.

Ben-Peretz designed several studies to investigate the ways in which teachers construed specific curriculum materials. She developed the curriculum item repertory grid (CIR) instrument for this purpose. CIR presents curriculum items instead of role titles, as elements in order to elicit constructs used by teachers in their thinking about curriculum. Ben-Peretz (1984) investigated teachers' constructs in relation to curriculum materials, the impacts on personal and contextual factors and student teachers' change on the construct system in relation to curriculum materials (pp. 106-7).

Belleli (1993) investigated the extent to which teachers' reflection on their teaching affects their perception of what happens in their classrooms. She conducted her research based on the deployment of the action research model of counselling with seven inservice teachers. She has elicited teachers' constructs, as Ben-Peretz has applied, through CIR as pre and post measures, based on Kelly's personal construct theory. The study was designed to assess changes in the teachers' behaviour and in their conceptualisations of teaching while they were taking part in the sessions as well as after they had completed the training. While her study and this study are similar from the theoretical and methodological frameworks, she used CIR, consisted of a set of fifteen curriculum items selected from a set of EFL materials. Teachers were asked to take random triads.

Sendan (1995) used the repertory grid to elicit ELT student teachers' personal theories about effectiveness in teaching. In his study, data obtained from cross-sectional and case study groups, suggests that while the content of participating student teachers' personal theories showed only limited change, there was notable structural change. This change was highly variable between individual student teachers, and was non-linear and complex in nature (p. 242). In this study, we have employed the same elicitation technique (triadic elicitation), and data obtained from it was subjected to FOCUS, Sociogrids, and Exchange Grid Analysis using the Repgrid 2 computer program. Similarly, repertory grid data and subsequent interviews were also subjected to content analysis. The changes between grids were analysed through content and structure in both studies whereas this study has also dealt with the behavioural

changes of teachers and looked for the compatibility between conceptual and behavioural changes of the ELT teachers.

Christie and Menmuir (1997) argued personal construct theory and employed the repertory grid as a tool for professional reflection. The repertory grid has been chosen as a tool to help qualified practitioners articulate and interrogate the system of constructs used to describe children. It both provided information about the conceptual framework of course participants in the domain of “children” and helped practitioners reflect on their knowledge and understanding of children through constructs they used to describe them. The study suggested that “they were interested to have a ‘window’ into their own thinking and were encouraged to think more critically about their constructs as a result” (p. 217). Repertory grid techniques are the most reliable for discovering the change which has occurred in person’s construct system. They have shown that

individual results obtained from an analysis of their constructs using the Focus program of the Rep Grid 2 package (Shaw, 1993) are useful to us as tutors in interpreting their constructs and the implied effectiveness of their reflections. (p. 217)

Christie and Menmuir’ study (1997) and our study are consistent in terms of the program used (FOCUS) and the applied technique (triadic elicitation) with also one type of analysis (content). Besides these programs and techniques, we have employed an Exchange analysis for understanding structural changes, and a Sociogrid analysis for conceptualising the commonality constructs of the teachers.

Yumru (2000) employed the repertory grid to identify degrees of conceptual change in both the content and the structure of professional teachers' perception of the features that lead to development. She conducted an action research study with a group of teachers for the purpose of in-service teacher development. Both her study and this study have similarities. The repertory grid has been used in the same manner. Except for the Sociogrids, the program (FOCUS), type of elicitation, content and structural analyses are similar.

Group elicitation technique was avoided to use since there are some doubts about the use of this technique (as mentioned in Sendan, 1995, see page 67-68). In the following sub-section, we will discuss other techniques and methods.

- **Repertory Grid Elicitation Methods**

Repertory grid techniques are difficult to undertake manually as they require feedback and management from the elicitor while at the same time attempting to avoid inter-personal interactions that would distort the elicitee's construct structures. Hence the advent of the personal computer in the mid-1970s and its evolution into the graphic workstations of the 1980s has made the computer implementation of interactive repertory grid elicitation an interesting area of development (Shaw, 1980,1981; Mancuso & Shaw, 1988).

The traditional way researchers' used to elicit constructs is Kelly's *triadic method* (1955). This technique asks an individual to choose three elements on a grid and then decide which two of the three have something in common with each other. The subject describes in what way the two elements are alike, and

writes this description on the first row of the "likeness" (or emergent) pole, (often on the left side of the grid). The subject then defines *how the third element is unlike the other two*, and writes this description on the first row of the contrast (or implicit) pole, (usually on the right side of the grid). In Kelly's method of eliciting personal constructs, as in this study, the subject nominates a certain number of people in his/her life (elements) and is required to compare them in triads and to say in which way two of the three elements-any two-differ from the third. The words or phrases resulting from this comparison form the construct pair. Thus, both the elements and the constructs are nominated by the subjects themselves.

Sometimes defining the way a third element is unlike two other elements may be too difficult for the participants (or subjects). Pope and Keen (1981, p. 45) advise that "it is important to remember triadic elicitation is an *aid* to formulating constructs but can often be abolished altogether when constructs 'come to the respondent' freely."

Another option is the *Opposite Method*, developed by Epting et al. (1971). This allows participants to write what they perceive to be the *opposite* of the relationship between the two similar elements. An advantage of this approach is that it usually ensures the constructs are bipolar in nature. Other methods include supplying example constructs in the grid to help guide subjects into what areas the researcher is interested. *Dyads* (Epting, et al., 1971) ask subjects to work with only two elements. They write constructs based on how the two elements are alike or different. The most complex method is *Laddering*, which involves asking an individual a steady progression of questions why the subject stated his or her elements.

The repertory grid is a way of finding personal concepts, their structures and the relationships between them without directly eliciting them (Gaines & Shaw 1993a; Pope & Keen, 1981). So, the researcher believes that using individual elicitation technique and triadic method provided finer judgments than the other methods and techniques. And it fulfilled our needs and purposes.

In the following section, how personal construct theory has been used in teacher education, and how they are interrelated with each other will be mentioned.

2.6.2 Personal Construct Theory and Teacher Development

Research and development programs with teachers are making headway using constructivist assumptions (Pope, 1985). One of the most important frameworks for teachers to understand individuals' conceptual change is Kelly's constructivist view. It explains personal differences in perception and behaviour and indicates the need for providers to relate all new learning to teachers' prior practices and beliefs. Fung (2000) asserts that

a constructivist-based professional development programme is quite novel to teachers in Hong Kong as most in-service seminars are usually prescriptive and tend to focus on knowledge transmission. Similarly, as surveys have indicated, didactic teaching approaches are most frequently used by teachers (Chow et al., 1993; Shi, 1998), the majority of them being unaware of the constructivist approach in teaching. The recurring use of what is often described by Western educators as a form

of passive learning may be explained partly by the highly examination-orientated education system. (p. 154)

Using Kelly's personal construct theory for examining teacher's thinking may serve to reduce the gap between theory and practice in education, as personal constructs may have their roots in formal theories as well as in classroom experiences or personal theories. A constructivist approach to teacher development provides teachers the opportunity to construct their own knowledge in a facilitated climate of learning and encourages them to be an autonomous and self-directed learner (Howe & Stubbs, 1996). What is essential in personal change is the humanistic perspective since it recognises the whole person and emotional aspects of development. Kelly's (1955) psychological constructivist theory provides this framework to understand individual conceptual change relating teachers' new learning to their practices and beliefs. Fung (2000) asserts that

The implementation of curriculum change has always been based on technical rationality, assuming that the transmission of ideas through in-service talks or seminars to teachers by those involved in the curriculum development process will guarantee successful implementation. This kind of approach to in-service teacher development is usually ineffective because it is decontextualised (Fullan, 1990), and does not take into consideration teachers' pre-existing beliefs and personal needs. This may explain why, in so many instances of curriculum innovation in Hong Kong, the implemented curricula have been observed to be different from the intended ones. (p. 153)

Personal construct theory, on one side, is an epistemology, a learning or meaning making theory, that offers an explanation of the nature of knowledge and how human beings learn. This theory maintains that individuals create their own understanding or knowledge through the interaction of what they already know and believe and the ideas, events, and activities with which they come in contact (Cannella & Reiff, 1994). Fung (2000, p. 154), while giving a theoretical framework of the study, states that

Constructivism has both an epistemological and a psychological basis. Epistemologically, it is rooted in the interpretive tradition and arose out of a dissatisfaction with the traditional theories of knowledge in Western philosophy, which considered knowledge as representing truth of the real world (von Glasersfeld, 1995). Central to this view is that knowledge is transitory and provisional, and any constructions of knowledge are only tentative models which will be continuously tested against experience and adjusted. Two approaches were used to discuss constructivist epistemology, namely radical constructivism and social constructivism (von Glasersfeld, 1995; Osborne, 1996); the former focuses on the viability of knowledge, while the latter emphasises the social component of knowledge.

On the other hand, the personal construct theory has a psychological basis.

Fung (2000) explains this as follows:

In its psychological basis, the constructivist view of learning has been influenced by Kelly's Personal Construct Theory, which suggests that a person has his/her own theories and will test these out in the real world through actions (Kelly, 1970). Learning requires the 'building of

conceptual structures through reflection and abstraction' (von Glasersfeld, 1995, p. 14). Constructivism affirms that meaning is constructed by individuals in their attempt to make sense of the world (Driver & Oldham, 1986) – a view that is also the core of the 'genetic epistemology' of Piaget. The building of new knowledge or mental constructs, therefore, is dependent upon the preconceptions that a learner brings to the educational experience (Anderson, 1992) and the context in which it occurs (Carr et al, 1994). It will require previously existing knowledge to interact with the new experiences (Osborne & Freyberg, 1985; Driver, 1988; Carr et al, 1994). Since learners have different experiences and prior knowledge, they may construct different meanings in the same learning context (Pope & Gilbert, 1983; Osborne & Freyberg, 1985; Fensham et al, 1994). (p. 155)

The constructivist notion of knowledge and communication is congruent with Schön (1987) and Stenhouse (1975) who described teachers' professional development "as a process of generating personal theories-of-action."

According to Schön (1987), teachers, like other practitioners, do not apply theories, but construct them from their practice, through an active dialogue with the materials which constitute their field of action. In their understanding, professional development of teachers can be seen as a process of personal growth (Keiny, 1994). Formulating their hypotheses, teachers' understanding is emphasized not on the theoretical level, but as an integration of theory and action. In line with this idea, a continuous open-ended process starts with questions, then understanding is achieved with the transformed situation into a model or theory of action which, in turn, becomes testable by its capacity to

achieve what the teacher had in mind. The reconstruction of teachers' implicit ideas turn into more explicit theories of teaching. Naturally, ideas are translated into teaching principles: Reflection-in-action and multi dimensional conception of reality (Keiny, 1994, p. 158). Both theory and practice (action) are construed in the real lives of learners. They, on one hand, learn and reflect on their learning and actions.

Kelly's 11 corollaries indicate the following for teachers' learning.

Kelly's theories for teacher learning include that

- the world is real but individuals vary in their perceptions of it;
- an individual's conception of the real world has integrity for that individuals;
- teachers use personally pre-existing theories to explain and plan their teaching; and
- teachers test these theories for fruitfulness and modify them in the light of such testing. (Roberts, 1998, p. 30)

2.6.3 Personal Construct Theory and Teacher Thinking

A teacher simultaneously assesses student comprehension, behaviour, curriculum objectives, pedagogical theories and past instructional experiences to make decisions in class (Clark & Peterson, 1986; Shavelson & Stern, 1981). The process of teacher thinking is such a private job that it cannot be explored through classroom observation by itself.

Early studies of teacher thinking were concerned with the content and nature of teacher thinking (Munby, 1986). These studies were based on an assumption that the differences in teachers' beliefs would be reflected in the teachers' teaching behaviours. Some of the researchers investigated teachers' background, their content knowledge, curriculum decisions made in class, lesson planning strategies, classroom management decisions, reflection and educational philosophy. But little formal attention was given to researching the nature of the relationships between the teachers' thinking and action. Some of the other earlier works on teacher thinking were built on cognitive psychology, particularly information processing, theory, or some metaphors such as teacher-as-decision maker. In later works, Clark (1986) claimed that the teachers of 1985 are constructivist who continually build, elaborate and test their personal theories of the world.

There is a growing trend in research studies that attempt to discover things about teachers' thinking from the perspective of the teachers themselves (Ben-Peretz et al., 1986; Clark & Peterson, 1986; Halkes & Olson, 1984; Lowyk et al., 1986; Verloop, 1988; Telles, 1998), teacher beliefs (Clandinin & Connelly, 1987) and case studies of teacher's experience (Munby, 1983), several teachers' experiences (Russell, 1988) describing teachers' knowledge, beliefs and values (Feiman-Nemser & Floden, 1986), review of research on teacher thinking, such as Halkes and Olson, 1984; Ben-Peretz et al., 1986; Day et al., 1990; and Sendan, 1995.

Some of the recent research has begun to address questions related to the relationship between teacher thought and teacher behaviour (Livingston & Borko, 1989). In studies relating teacher thinking to action the focus has been

upon the content (Mitchell & Marland, 1989), structure (Livingston & Borko, 1989) and/or meaning (Munby, 1986) of teacher thought.

Denicolo (1985) has explored the metaphors used by teachers. We see Clark (1986) on teachers' thoughts and actions. Teachers' thinking, reflections on their concerns and experience of reflection and clarification were discussed in Day, 1984; Connelly & Clandinin, 1985; Butt, 1984 and Yinger, 1987.

On the other hand, Ben Peretz (1984), working within a constructivist tradition, has studies which explored the constructs teachers have regarding curriculum materials, modes of curriculum interpretation and implementation of innovative curricula. Pope (1993) mentions the current paradigm in research which aims to link teacher personality to action in the classroom and asserts that

A current core assumption is that teacher thinking researchers are trying to understand and interpret ways in which teachers make sense of and adjust to and create the educational environment within their schools and classrooms. Whilst sharing a focus and ideological commitment to viewing teachers as active agents in the development of educative events, the field of teacher thinking is diverse in terms of theoretical and methodological approaches. (p. 22)

Teacher thinking in terms of methodology and the area of focus have been influenced by the work of Kelly (1955) and his philosophy of constructivist alternativism. Roberts (1998) argues that Kelly's (1955) approach to human learning is framed in terms of individual perception, meaning making and action. He sees Kelly's theory as an "intensely bright but narrow light on the nature of teacher thinking and development" (p. 32). He believes that teaching is a

socially constructed role, and in learning to teach, the expectations of others and relationships with others play important roles. He recognises that while teachers develop their thinking by personal construction, reconstruction, social validation play a critical part in the process (p. 33).

Pope (1993) argues as follows:

Kelly maintained that knowledge was not developed by collecting “nuggets of truth” – this he labelled accumulative fragmentalism. Reality exists, but the philosophy of constructive alternativism holds that we do not conceive this directly, rather we place an interpretation on our worlds. Our knowledge is limited by the extent to which we are courageous in our experimentation with alternative constructions of the world. Kelly maintained that we do not need to be victim of our biography if we accept our responsibility for shaping our future. The constructs we erect as our navigational model of the world have a dual function, that of theory testing and theory building. Our construct system is that with which we anticipate future events. Persons are not reactive to their environment but have the potential for constructing new horizons. (pp. 19-20)

Ben Peretz (1984) notes, (cited in Pope, 1985), as follows:

Investigating teacher thinking in the framework of personal construct theory may have practical implications. Making people aware of their own construing patterns and processes plays an important part in allowing them to change, i.e., to learn. Thus, participation in the research may become an educative process for teachers. More-over, workshops and exercises for identifying personal constructs may be

planned as part of teachers' professional training and development. (p. 106)

The core assumptions in Pope (1993), of teacher thinking researchers from a constructivist perspective are:

- the world is real but individuals vary in their perception of it;
- an individual's conception of the real world has integrity for that individual;
- teachers use personally pre-existing theories to explain and plan their teaching;
- teachers test these theories for fruitfulness and modify them in the light of such testing. (pp. 20-1)

Researchers, taking the above assumptions into consideration, need to understand teachers' perceptions before providing input or trying to lead them in change. In addition, the importance of teachers' attitudes as a starting point in any teacher development program is gradually being recognised by the researchers. As long as the teacher development programs suit the needs of teachers, development, in its real sense, will occur.

Another focus in research into teacher thinking and their patterns of beliefs has been intensively used by educational researchers in order to understand the nature of teaching and learning in classrooms. There is a growing body of research literature that suggests that the beliefs that teachers hold directly affect both their perceptions and judgements of teaching and learning interactions in the classroom, and affect their teaching behaviours (Clark & Peterson, 1986; Clark & Yinger, 1987). Evidence is also growing that beliefs and patterns of thinking are an essential aspect of the development of

effectiveness both through initial teacher education and training, and later through teachers' professional development and their effectiveness in the classroom (Buchmann, 1984; Ashton & Webb, 1986; Dinham & Stritter, 1986; Fenstermacher, 1986; Nespor, 1987; Clark, 1988; Eisenhart et al., 1988; Weinstein, 1988, 1989; Cole, 1990). In the psychology or cognitive science literature, there is a significant amount of research on individual belief systems, that is, integrated systems of concepts, scripts and scenes that lend meaning to action systems in classrooms (Mayer et al., 1984).

Personal construct theory enables analysis of learner and teacher thinking in terms of the structural relationships between constructs. For example, Sendan (1995) and Sendan and Roberts (1998) described the complexities of change in student teacher thinking. Until Sendan's (1995) research, studies approached teacher thinking in terms of one-dimensional lists of variables, which reflected neither the complexity of learning processes nor the systematic nature of changes in teacher thinking. The key points to be researched were to describe "the way in which student teacher thinking developed as a process, and how personal constructs related to each other as a system." Sendan found the content and structure distinction to be of great importance when describing conceptual change in student teachers. When structural development was taken into account, it was necessary to disqualify the conventional view of preservice training as a not very powerful intervention on student teachers' personal theories (Roberts, 1998).

2.7 Is Action Research Methodology Compatible with Personal Construct Theory

Different paradigms emphasise different parts of learning model. The behavioural view, for example, assumed that the outcome of learning is change in observable behaviour and emphasised the effects of external events on individual. The 1960's witnessed the cognitive view of learning, replacing the behavioural view and researchers became interested in the learning process itself. Since the 1980's the current paradigm in the educational science has been constructivism. We have adopted a constructivist view in our study with the research methodology of action research for many reasons. Levy (2003, n. p.) states that

Action research has begun to be used within the broad field of learning technology and related areas, as a means of evaluating new initiatives and developing conceptual models that can be used as resources within the wider community of practice. As yet, however, there are few detailed accounts of how this methodology is being applied in this context, and little discussion of paradigmatic issues, and issues associated with research design and methods, for practice-based (or indeed, other) non-positivist research in this field. Issues to do with constructivism as a research perspective would seem particularly salient given the strong influence of ideas associated with constructivism as an educational philosophy.

To what extent action research and constructivism are compatible will be discussed below from different perspectives.

Firstly, Kelly's theory was a potential alternative to both dominant behaviourism and the various psychoanalytical theories. We accept that constructivist philosophy assumes that learning is essentially an active, situated and social process. The constructivist theory acknowledges that the teacher is not a transmitter of knowledge but rather a facilitator and provider of experiences from which learners will learn. According to constructivist theory, then, knowledge is a social construct that is gained through interacting with other people. It requires pre existing knowledge to interact with the new experiences. Personal knowledge is constitutive of the person: that is, a person does not *have* a construct system, but *is* a construct system. And constructs are often identified by how they function and work among the individuals involved. His theory of personality is that "it should be fertile in creating new ideas" (Zuber-Skerritt, 1992, p. 63).

Zuber-Skerritt (1992) conducted a research with a teaching team, students and herself as a teacher as well as an educational advisor in higher education. She mentions the problem of the relationship between theory and practice. It is one of the aspects of the this subsection. She suggests that

Practice in higher education usually means the application of educational theory, but it may also be understood as the exercise of the teaching profession in higher education; the whole action or process of learning, teaching and staff development; or the skill gained from this process and experience. (p. 13)

So, the theoretical and methodological framework should be joined in research. Therefore, we suggest that the action research methodology gives enough right and satisfactory space for a constructivist framework, which will be discussed in

the following paragraphs. The people, for example, involved in Zuber-Skerritt's (1992, p. 18) case study followed Kelly's theory. She stated as follows:

we need not merely accept and apply theories, rules and principles to our tasks (of studying, teaching, administration) in technical manner but that we are 'personal scientists' (capable of construing our own and others' experiences, of hypothesising, testing our hypotheses, and of anticipating and predicting future events which again have to be tested and submitted to critical reflection and self-reflection).

"Kelly's theory bridges the gap between traditional theorists on the one hand and practitioners on the other. The conflict between theorists and practitioners can be solved by the personal scientists" (Zuber-Skerritt, 1992, p. 64).

Teachers working as active practitioners are

'personal scientists', able to construe their own and their students' experiences, to hypothesise, to test their hypotheses and anticipate or predict future events. They may be guided by educational researchers, but essentially they are capable of doing action research into their own teaching experiences. (Zuber-Skerritt, 1992, p. 64)

Zuber-Skerritt (1992) defines action research in her book as "... [it] is research by higher education teachers themselves into their own teaching practice and into student learning (with the aim of improving their practice or changing their social environment) ..." (p. 88). Using her own CRASP model of action research, Zuber-Skerritt sees teacher as "teacher as researcher" (Stenhouse, 1975), the "personal scientist" (Kelly, 1955), and the critical "reflective practitioner" (Schön, 1983). In light of the theories outlined in Zuber-Skerritt (1992), she states that

we may assume that teachers in higher education are personal scientist (Kelly, 1955) with a critical, self-critical, dialectical thinking who control the action (learning, research, teaching) consciously, with the action having an imprint on their cognitive and affective systems. Similarly, the action may influence the object (i.e., the 'objects' of teaching and the teaching context), but the object has also an impact on the action (e.g., it may shape, restrict or enhance the action). (p. 89)

Drawing on the above argument, we may, first, suggest that teachers acting as "personal scientists" and "teacher-researchers" and "reflective practitioners" adopt theories and learning to the extent of the permeability to their construct systems (modulation), intend to integrate their systems (elaborative), will be able to develop their representational model of the world in which they anticipate events and test their theories (fundamental) in an action research cycle (or methodology) better. It is because teachers will be acquiring knowledge of a subject just like their students. They will start from their personal knowledge, extend it by a continuous and cyclical process of learning process, formulate their hypotheses, test them, confirm or reject and start a new one (Zuber-Skerritt, 1992). Yumru (2000) also adopted Kelly's constructivist theory and investigated teachers' (in higher education) practice and learning by engaging in an action research cycle. Elliott supports our argument with an approach to action research and states that "theories are not validated independently and then applied to practice. They are validated through practice." Elliott advised teachers to look carefully at the facts of a practical situation, and generate hypotheses or explanations which they could explore

further, and which could lead to a 'general plan' being constructed to enable intervention to take place with the intention of improving the practice.

Secondly, Kelly's (1955) theory of personal construct psychology suggests that "teachers learn when they are able to reflect on and test out their personal theories by means of direct personal experience" (Roberts, 1998, p. 30). Schön (1983) refers to teachers (in higher education, Zuber-Skerritt, 1992; Yumru, 2000) as reflective practitioners who examine, reformulate, and test their tacit knowledge and understandings of their practice. Tacit knowledge is embedded in practice. While trying to make sense of a practical problem, the reflective practitioner also reflects on the understandings which have been implicit in his/her actions. This process improves his/her practice. The practical problems can not be solved by pure theory but by adopting a course of action. Theory arising from practice and practice improved by theory leads one to change. Both theory and practice may be integrated by the teacher who is a "reflective practitioner" and a "personal scientist" (Zuber-Skerritt, 1992). Action research is reflection-based, action-oriented, and, as this description suggests, cyclical. So, we suggest in this study and attest to the fact that the success of research in teacher development is dependent on the active participation of teachers as "reflective practitioners" (Schön, 1983) and "personal scientists" (Kelly, 1955) in the research process in which their own problems and practices are studied- the research process in which teachers are not seen as the subjects but participants. Carr and Kemmis (cited in Zuber-Skerritt, 1992) supply our argument and say that "educational theory is practical, in the sense that the questions of its educational status will be determined by ways in which it relates to practice."

In our study, teachers take on the role of researchers in the action research cycle to investigate their own teaching environments. Elliott (1978) said that:

action research was about an increasing understanding of the social situation in which the participant finds himself. It was subjective, in that it was concerned with a problem and the actors within the problem; it involved participants in self-reflection; and it facilitated 'unconstrained dialogue' between researcher and participants - 'there must be a free information flow between them.' (p. 356)

Carr and Kemmis (1983), also, stressed reflexivity in action research by bringing the "self" of the researcher into the action and developing the idea of a "self-reflective action research cycle." The suggested action research process is

a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their practices, their understanding of these practices and the situations in which these practices are carried out. (op.cit., p. 162)

Through this process, we come to understand our tacit and subconscious theories and beliefs. We are able to develop and change our explicit value system. In this change, our value system possibly changes our practice (Somekh, 1993). "Each individual action researcher is creating her or his own living theory in the explanations for their professional learning in their educational enquiry" (Whitehead, 1998). Exploration of a living theory includes reflections on standard educational theories, personal practice, values and beliefs (Nowlan, 2001). There is teachers' belief-realisation that they can learn

more about what is happening in their classrooms, which can help them to better understand language teaching and any learning which is happening (or not happening) in their classrooms. This increased awareness and knowledge leads to a greater understanding, which, in turn, leads teachers to try out new approaches, techniques, tasks and activities, which is consistent with constructivism. Teachers with support and guidance, even those working in difficult and demanding contexts, can become experts in their own classrooms through action research and reflective practice. Included in the definition of action research is the idea that teachers will raise their own questions, that they will be part of the decision making process, and that power will be shared amongst participants as “personal scientists” (Kelly, 1955). There does not seem to be a dominant partner in a group. They share feelings and encourage each other to grow in understanding through working together for the common, but individual, good, rather than working competitively on their own. The teacher is in a relationship with the group which explores meaning through dialogue, and does not present knowledge as fixed and given.

In the self-reflective cycle, practitioners identify the area they wish to improve, investigate what is happening at the time, suggest ways in which improvements can be made, draws up strategies for monitoring what happens as a result, and reflects on this data to plan a revised course of action. By using a self-reflective cycle to describe action research, Kemmis and Carr emphasised the practitioner-research aspect.

The goal of many in-service teacher development programs should be the engagement of teachers in a process of critical reflection upon their current teaching beliefs and practices. Action research provides teachers with an

opportunity to apply the findings of their research to their own situations and to adapt theory to practice. It also involves teachers as participants in their own educational process, and helps them to develop a critical and reflective eye for their own instructional practices along with those of their peers (Lederman & Niess, 1997). The systematic collection of classroom data presents teachers with a view that could *catalyze* a change and facilitate informed decision making with regard to curricula and the instructional issues.

Our research questions (see section 1.4) are related to the previous published studies (given as references). In the following paragraphs, we will mention how our study is different, what the existing studies lack and how we address this gap with our study (i.e., how our study fits into the whole picture on the basis of what we have discussed so far in this chapter).

Firstly, we conceptualise teachers' learning from constructivist perspective in which knowledge is individually constructed and socially coconstructed by learners based on their interpretations in the world (Jonassen, 1999). Constructivist environments engage teachers in knowledge construction through collaborative activities that embed learning in meaningful context and through reflection. In the constructivist learning environment, teachers work together and support each other, learn from each other, use variety of tools and information resources for their learning goals and problem-solving activities. The teachers, in this study, were not approached as those who need to be trained. Thus, we are concerned not only with teachers' learning (input) but also their learning by doing (classroom inquiry). So, in order to reach our goals, we set up a program in which input and classroom inquiry phases were involved. From this concern and implementation strategies, our study covered

what the existing studies lack (i.e., lack of approach, lack of design, lack of tools).

Secondly, we conceptualise teachers as constructivists whose actions are deeply embedded in their thinking. Their life-views often in a very subtle, covert or subconscious way. Teachers wishing to identify problems in their teaching, improve performance, or adopt new approaches must first fully understand their personal and practical theories which give rise to their current actions. Such self-knowledge is an essential prerequisite for change or improving performance. Thus, we are concerned not only with uncovering their personal theories of effective teaching but also monitoring change in them (along with Sendan's study, but different from the other studies). Given the research references (see sections 2.1.1, 2.1.2, 2.5, 2.6.2, and 2.6.3) regarding teacher development idea from the constructivist assumption, teacher thinking, learning and teacher change, we are interested in both the content and the structure of their personal theories. We, also, focused on the changes in their personal theories.

Thirdly, along with Fullan's (1982) advice for making significant changes in teaching involved teachers understanding themselves and making significant changes in goals, skills, or beliefs, behaviour, our study is different from the other studies in terms of putting a light on not only the conceptual changes of the teachers, but also behavioural changes and the consistency between their conceptual-behavioural changes. Our study is related to the study of Gorodetsky, Keiny and Hoz (1997) in terms of proposing an interrelationship between conception and practice, and using reflective process but different from methodological point of view. Gorodetsky, Keiny and Hoz (1997), considering

this issue from Elliott's (1991) point of view, assert that action research-because of its practice-oriented nature-serves as an appropriate vehicle for change.

Lastly, given the research evidences regarding action research (see sections 2.2.1, 2.2, and 2.7), our study fits into the whole picture. Action research, in our study, did not only provide a better access to quality enhancing the phases of knowledge development (input) and problem-solving (classroom inquiry) but also made direct contribution to practices by valuing actions and practices of the teachers.

This study was different from the other studies in terms of participants (secondary-high school teachers). Sendan (1995) dealt with pre-service aspect of teacher learning and change, Yumru (2000) dealt with university teachers' in-service development. Both researchers conceptualised teachers as constructivist. From this perspective, our study will remain as a footprint.

In the following chapter, we deal with our research design and methodology.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter presents the research done, the instruments, and procedures used for the elicitation of teachers' views about effective teaching, the selection of the participants, the research procedures, data collection, and the methods for data analysis.

The present study aims to establish a framework within which the teachers' in-service needs are identified, and their learning for change was monitored at the outset of a reflective teacher development program. In light of the theories discussed in this study so far, we have three frames of reference regarding the design of this study.

The first frame of reference is the nature and identification of the term "teacher development." Teacher development, within this frame of reference, is viewed as a process of EFL teachers' thinking and learning as a self-directed learner and problem-solver in a collaborative action research cycle. Within this framework, teacher development implies uncovering and changing one's personal constructs; thoughts and feelings, attitudes, and values underlying one's personal theories (Yumru, 2000).

Unlike traditional teacher education programs, which tend to focus on what teachers need to know and how they can be trained, we try rather to

understand the notion of the reflective practice which considers the teachers' knowledge through particular concrete examples, teachers' professional learning and change (Loughran, 2002).

In this study, the issues particular to in-service teacher development literature have been discussed. The researcher argues against teacher development programs where most of ideas are presented through seminars and workshops or through teacher training programs. Most of the ideas and issues in these training programs are initiated in a way anticipated by the presenters, with a pre-determined program and ready-made solutions and approaches, and conveying knowledge. This process is content-based and pre-determined. It does not promote learning and experiencing as there is a specific body of knowledge or content to get across and all the trainees receive the same is subject-based content which is limited and prescriptive. This, naturally, gives rise to short-term results. Such training based approaches to teachers' in-service development do not foster important creative and responsive practice. Teachers are not encouraged to alter their classroom practice, and do not see or experience improvement in students' learning outcomes. As a consequence, inescapably, some teachers either adopt the techniques inappropriately, or reject the new ideas totally with the belief and /or the fear that ideas and activities are not suitable for their students and for their practical use.

We agree with Richards and Nunan (1990, p. xii) who point out that such education programs should have "less emphasis on prescriptions and top-down directives and more emphasis on an inquiry-based and discovery oriented to learning (bottom-up)." We have employed an in-service teacher development

program which takes into account teachers' existing knowledge, their priorities and experiences (see Hodson, 1989; Erickson, 1991; Rubba, 1991; Diamond, 1993; Rönnerman, 1996 in Fung, 2000, p. 155). It requires "previously existing knowledge to interact with the new experiences for change" (Osborne & Freyberg, 1985; Carr et al., 1994 in Fung, 2000, p. 155). "Since learners have different experiences, priorities and prior knowledge, they may construct different meanings in the same learning context" (Pope & Gilbert, 1983; Osborne & Freyberg, 1985; Fensham et al., 1994 in Fung, 2000).

The second frame of reference is the type of research, which has been chosen as the emancipatory (or critical) action research. The reason for choosing this type of research has been mentioned in the previous chapter (see Chapter 2, types of action research).

The action research model, in this study, requires the participation of teachers in identifying strengths and weaknesses through repertory grid (as a pre and post diagnostic research tool), uncovering their beliefs and personal theories through activities and materials; and helping to develop principles and guidelines for teachers in collaboration (group discussions between researcher and teachers, group works, project development, etc...).

The two frameworks, discussed above, are interrelated in the sense that the goal is to improve teachers' understanding and practices.

Through systematic, controlled action research, teachers can become more professional, more interested in pedagogical aspects of ... education and more motivated to integrate their research and teaching interests in a holistic way. This, in turn, can lead to greater job satisfaction, better academic programmes, improvement of student

learning and practitioner's insights and contributions to the advancement of knowledge in higher education. (Zuber-Skerritt, 1992, p. 15)

The research conducted is both qualitative and quantitative. Action research methodology was used effectively in encouraging change in teachers' thinking, learning and teaching. This researcher believes in a greater need for individual support in teacher development. Since the aim of action research is to solve problems by developing new skills or approaches that could be easily applied to a new classroom (or any other work setting as it is practical, flexible and adaptive to different situations), the researcher choose action research as the methodology of this study. Action research as a methodology is dynamic, systematic and participatory, and allowed for the inquiry into the teachers' own practices and subsequent reflection-in-action. Thus, the researcher agrees that we should encourage teacher's own sense of self, which is deeply embedded in his/her thinking, and reflected in his/her teaching and learning. Then, they can find real change.

In the concept of learning by doing, learning is seen as "experiential" (Kolb, 1984), "reflective" (Schön, 1987) and "constructive" (Kelly, 1955). It is essential to this approach. It recognises that people learn through the active adaptation of their existing knowledge in response to their experiences with other people and their environment (Kolb, 1984). In addition to this, in the process of building on experience (which is natural for people), action research provides a framework for formalising and making this process more effective, systematic and reflective. The program process which the researcher decided upon uses experiential and constructivist learning principles (Boud et al., 1985;

Duffy & Jonassen, 1992; Kolb, 1984). While the teachers engaged in a collaborative, problem-solving, and reflective process (by focusing on their own action research projects), the researcher continued with the research. Meanwhile, those teachers were doing the learning and the researcher was doing research, which are one and the same (in Krogh, 2001).

As a third frame of reference, this study draws on Kelly's (1955) personal construct theory and Schön's (1983, 1987) conception of "teacher as reflective professional." Kelly's personal construct theory's methodological component, repertory grid (Pope and Keen, 1981), teachers' logs, interviews, observation checklists, observation notes and teachers' and the researcher's diaries have been used as tools for data collection. We have chosen to employ these instruments interrelatedly based on the theoretical and methodological framework of our study.

3.2 The Participants of the Study

This study was conducted with seven ELT teachers; one male and six females (see sections 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, and 4.8 for detailed demographic information about each participant) who are teaching English language in two types of schools; private and state schools. Four are in a private college, named İçel College, three are in three different state schools; Atatürk School, Tece School, and Zeki Saba School, in Mersin, Turkey. İçel College—a private college, Mersin—was chosen as one social environment for the purpose of this study. The teachers have been working with children between the ages of 6 and 17. The teachers in this study were all graduates of

state universities where the medium of instruction was English. They all had both native and non-native teachers of English in their university education. They all had methodology and courses. Apart from participating in some seminars held by some publishing companies or inter-collegiate workshops, no one in this study had had the experience of inservice teacher development during their first years of teaching as EFL teachers, nor presently, as “horses of the courses” (Roberts, 1998, Higgins & Leat, 1997). So, this study of teacher development was a highly new experience for the teachers.

The study was conducted throughout an academic school year. The contacts were arranged with the teachers and the school principals. An EFL teachers' meeting room was provided for the meetings. Participants were all volunteers. The group was formed on a voluntary basis, since we believe that teacher's in-service development should be self-initiated and self-directed.

The program was beneficial from the school's perspective. It enabled the English language teaching staff to review current practices within the parameters largely negotiated by the agreed aims of the school, whilst also allowing individuals opportunity for professional growth and development. The ultimate aim of the school principals was to enhance their teachers' development and highlight the problems with the possibility of the teaching staff bringing about educational change through the program in order for the students to benefit from improved teaching.

- **Problems Encountered**

Finding volunteer teachers for this program was one of the most difficult stages for the researcher. Nearly all the state and private schools in Mersin were visited to find voluntary teachers. The school principals were given

information and provided with documents about the aims and procedures of the program. The negotiations took a long time, about three months during the summer before the schools opened. The researcher was aiming to conduct this study with more teachers. However, naturally occurring events, the schools' background situation, different approaches of principals and the teachers' heavy work load affected the number of participants.

The problems encountered in our case were as follows:

1. Mostly either the state-run school principals volunteered but the school teachers themselves did not volunteer or the teachers volunteered, but the school principals did not allow them to participate in such a program for many reasons. Cochran-Smith (2000) in Ben-Peretz (2001, p. 55) argues that teaching and teacher education are unavoidably political enterprises and are, in that sense, value-laden and socially constructed. Over time, they both influence and are influenced by the histories, economies, and cultures of the societies, in which they exist, particularly by competing views of the purpose of schools and schooling. Like it or not, more of us in teacher education and in the policy communities will need to engage in these public and political debates if we are to have a real voice in framing the questions that matter for the future of teaching education.
2. Most of the private school principals were eager to send their teachers to the program but the teachers were too busy with school activities, extra work besides their heavy load of teaching hours (approximately 22-35 hours weekly).
3. Having a need for a fixed time every week, and a need for a proper working environment.

4. After fixing the time and the place, some teachers' timetables did not allow them to take part in the program. It was either because of not having the opportunity to change their schools' fixed timetable, or because of being some distance away from the actual working place.
5. Some private or state run school teachers individually confessed that they did not need such a program, although they did find it quite useful. Teachers in such schools consider themselves either too old to gain from such an experience or baby-sitters instead of teachers of language. Ben-Peretz (2001, p. 54) reminds us that

Perhaps teachers with the care-taking view are aware of the fact that they serve more as baby-sitters than as teachers and see themselves as solving social problems, acknowledging the importance of the role that has been imposed on them by circumstances.

3.3 Research Design

The main purpose of this study was to establish a teacher development program (see Table 3.1 for the procedure followed in the study) employing an action research methodology and a constructivist framework. The program has been perceived as a concerted, long term process, not a series of events (Roberts, 1998, p. 97).

During the study, the researcher and the teachers met every Wednesday afternoon. Each session lasted about three hours. The program lasted 20 weeks (one teaching year except for national holidays and school events; two semesters). It followed an action research cycle. The process and the

methodology of the program was action research; the collection of data and focused reflection on personal and professional development and teachers' classroom practice.

The action research cycle consisted of planning, acting, observing and reflecting. One action-research stage formed a foundation for the next one, and the objective was to constantly develop their actions and understanding.

(Kemmis & McTaggart 1988, pp. 11–3). The action plan carried out was as follows:

1. Identify a specific puzzle/problem in your own teaching situation,
2. Reflect on it,
3. Decide on suitable data collection method(s),
4. Collect data,
5. Reflect on your finding(s),
6. Plan possible solutions to your puzzle,
7. Act upon these,
8. Reflect on them,
9. Write up the Project. (Yumru, 2000, p. 43)

As in Yumru (2000, p. 43), we conducted this study at macro and micro levels.

At the macro level, the researcher conducted a study—an in-service teacher development program—with 7 teachers to find solutions in the identified problematic areas, following the action research cycle of planning, acting, observing and reflecting.

- **Needs Analysis of the Teachers in this Study**

The teachers' learning context in the program, as we strongly support, was not pre-determined by the researcher nor by the teachers nor the schools.

The teachers' needs and the context of the program were determined after the administration of the first repertory grids. That is, after each teacher was administered repertory grid, the researcher sought for the weak points of the teachers. The weak points of the teachers were decided on the basis of the ratings of each teacher's constructs. The teachers' ratings of "*self as a teacher*" and "*ideal self as teacher*" on the same construct were analysed and grouped. Their low ratings of self as teacher showed that the teacher did not see him/herself as close to his/her ideal. In the constructs elicited from the seven teachers through triadic comparisons, self as a teacher meant "*self as teacher at present*", while ideal self as teacher meant "*the teacher they would like to be.*" As Sendan (1995) states, the aim of adding these two elements was to explore the teachers' construction of "*self*" and "*ideal self*" as teacher in relation to other teachers they classified in effective teaching. So, the teachers' low ratings of self as teachers showed us that the teacher needed learning (input) on the constructs. All the teachers' low-rated constructs were grouped; this showed us the perceived needs of teachers. We may say that this process which identified their low-rated constructs determined the context of the program. We can name this process as needs analysis of teachers for the things that they would be learning during the program. This led us to look at the overall view of the program. After the needs analysis/identification phase, the researcher decided to concentrate on the teachers' weak points. The teachers' weak points determined the plan and the topics (the content) of the input sessions.

It is worth mentioning that the needs analyses of the teachers and the problems that they dealt with during the classroom inquiry phase showed that there was a consistency between the teachers' needs and the project topics.

The problems that they have dealt with will be mentioned in the sections about the teachers' demographic information (see sections 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6 and 4.2.7).

The rationale behind the sessions will be mentioned in detail in the following paragraphs.

- **The Teacher Development Program**

The teachers in this study were expected to design appropriate strategies and methods to deal with the questions identified by themselves at the micro level. However, as there are needs for learning new strategies and knowledge, the researcher integrated input and classroom inquiry process in the action research cycle. So, the teachers' actions and research went along with the researcher's action and research.

The program involved two phases: "input" and "classroom inquiry." The aims for the two phases are summarised below.

A constructivist view of teacher learning suggests that "new information will be personalised: processed and interpreted by learner-teachers on the basis of their current personal theories, and then tested against direct experience and social exchanges" (Williams & Burden, 1997 in Roberts, 1998). "All teachers, whatever their level of experience" says Roberts (1998, p. 152) "bring their prior knowledge and personal theories to new information." The needs analysis displayed that teachers need input sessions for enriching and enhancing self-awareness. The uncovering of teachers' prior knowledge and personal theories went side by side with presenting new information such as new trends in teacher/classroom research, and reading articles related to their

own problems. Thus, the researcher can try to start from “where the teachers are” and the teachers could become more aware of the differences between their current practices and ideas and the new information presented to them (Roberts, 1998, p. 153). The teacher development program will be presented under two sub-headings: the input and the classroom inquiry sessions.

New information was presented through reading article, by concrete examples from their teaching experience as well as more abstract descriptions and explanations. Concepts and experiences were presented with appropriate activities such as presentations, e-mail network, workshops, and discussions with personal reflections related with the issue. Each teacher adopted the role of presenter, facilitator, negotiator, and learner as well. The phases of input and classroom inquiry processing cycles were as follows:

- “uncovering existing practice, personal theories and knowledge relevant to new information” (Schulman, 1998; Lamb, 1995 in Roberts, 1998),
- receiving input through presentation of new information by readings, demonstrations, video extracts from classes, open discussions, internet searching and experiential activities,
- processing input through talking, examples, and writing,
- testing out the practical applications in light of classroom, observation and reflection as well as through students’ feedback.

The researcher did not have any difficulty in terms of finding and applying interactive and creative techniques in ELT for input sessions. The activities presented in ELT books, academic articles, action research examples from ELT world’s room and internet web sites were used as sources between the researcher and the teachers and among the teachers.

The classroom inquiry phase was the application of the teachers' learnings in their classes. Better teaching is characterised by an attitude of scientific inquiry. It is a form of scholarship in which we ask: How can we, as teachers of English language, improve our teaching? We have tried out some ideas in response to that question, systematically observed and collected evidence as a consequence of actions, and analysed and reflected on the evidence. Action research followed this cyclical process of acting, observing, and critical reflection on the consequences of our actions. The aim as action researchers was "to improve our teaching by using professional (informed) eyes to observe our own practice" (Arhar et al., 2001 in Arhar & Buck, 2000, p. 327). As we have experienced in our study, "unlike other forms of inquiry, action research is geared toward improving the researcher, as well as the research situation and research participants" (Arhar & Buck, 2000, p. 328).

We strongly believe that teachers' starting points and concerns should be discovered first. In our study, teachers' personal theories on effective language teaching were elicited by means of repertory grid technique before and after the program. Both the elicitation and feedback sessions of the participating teachers were tape-recorded. The teachers were not asked to do or bring anything special to the repertory grid elicitation and feedback sessions for the sake of research.

The focus of the first meeting with the teachers was on the explanation of the nature of this program. At the end of the first session, teachers were asked to talk about their questions and problems in language teaching in order to find out their expectations from the program. For the purpose of guidance, the teachers were provided with a guideline as a source (obtained from Richards &

Lockhart, 1994 in Richards, 1998, see Appendix 1). The teachers were asked to put the questions in order of importance. The aim of the discussion was to engage the teachers in a process of critical reflection upon their current teaching beliefs and practices (Richards & Ho, in Richards, 1998). Thus, teachers would be in a discussion atmosphere and the researcher would find out each teacher's priorities and concerns on teaching problems. Priorities and negotiated problems were triangulated through the processed repertory grid data. Since the fundamental principle of constructivism is to understand a person, then to understand how he or she perceives the world, and thus how he or she construes personal choices and decisions, the first thing the researcher did was to elicit teachers' personal theories regarding the features of a teacher that leads to effective language teaching through the repertory grid. The researcher believes that teachers' beliefs should be articulated first and then analysed in order for them to become aware of their own personal theories. The repertory grid tool was utilised to investigate the content; the nature of the constructs, and their structure; the way constructs are related to each other as a system of teachers' personal theories. Another reason for employing repertory grid was that it enabled the researcher to investigate change/s in personal theories of the teachers. The researcher could identify the changes in the content and structure of the teachers' personal theories. It also focused on the construction of self and ideal self as teachers. Repertory grid elicitation and action research were ideally suited to the development of reflective practice through reflection-on-action. Since constructivist view implies certain principles for language teachers, this study analysed the teachers' strengths and

weaknesses, looking at their starting points and concerns, the repertory grid enabled the researcher to cover the above-mentioned processes.

The content of the repertory grid was constructed by the researcher and nothing was imposed as in a questionnaire. This gave to the researcher a chance to see things from the teachers' own perspectives and to uncover the teachers' personal theories. The repertory grid, as discussed in the literature review, is a good technique for elicitation of teachers' personal theories because it does not impose any structure on the teachers (as in the case of a questionnaire or an interview), but represents the teachers' own construction of issues. This made the teachers feel at ease and could make them provide more information. One major advantage of repertory grid elicitation was that the researcher did not need to have a profound knowledge of the domain of the program to be developed. She simply needed to guide the teachers through the process. While concept mapping is a powerful method for assisting learning at the conceptual level, it is not as effective at improving the recall of details as the repertory grid is. The utmost aim of the researcher in using repertory grid was to find conceptual change in the teachers between Times 1 and 2. To observe the behavioural change/s of the teachers, the researcher employed observation at Times 1 and 2 right after the repertory grid administrations. At the end of the study, teachers' conceptual change/s and behavioural change/s were analysed and any consistencies between conceptual and behavioural changes were identified.

After each repertory grid session, observation dates were negotiated with the teachers. They were asked to arrange a suitable date for a 2 class-hour observation. During each classroom observation, the researcher made use of

detailed field notes—classroom observation checklists and classroom observation notes (see Appendix 3)—so as to produce lesson profiles, which provide specific notes on each construct provided by the teacher.

The reason for choosing observation is that it provides direct evidence of teacher behaviour, teachers' interactions with students, and offers first hand information of their teaching in their own classes. We may call the observations as "structured" but not fixed for all teachers. Since we believe that teachers' priorities and concerns are different, its scope and limitations are subject to the teachers. The researcher, after the repertory grid sessions were completed, designed observation checklists in which each teacher's elicited constructs were written down on separate sheets as "the items on which the teachers will be observed." Besides observation checklists, the researcher designed another sheet for observation notes in which each teacher's constructs are written down and a 5-point rating scale is included. Each teacher's class was observed for 2 hours in order to see the teachers' theories in action. The researcher, this time, rated each construct of teachers based on the observed lesson. Teachers' own rating for themselves (self as teacher) on the constructs and the researcher's observation rating were listed. The teachers' own rating for "self as teachers" and the researcher's rating were compared and used for data analysis. The aim for this type of observation was to see the consistency (if any) between their personal theories and theories in use. After each teacher's observation sessions, teachers were given feedback on their constructs (personal theories) and behaviours (theories in action), the strengths and weaknesses of teachers on the observed constructs. Teachers were given feedback both on their own constructs and other observed behaviours (that is, those not mentioned in their

repertory grids) during observation sessions. The purpose for doing this was to make them more aware of how they see (verbally expressed constructs of their own) themselves and what else they have in their repertoire. Giving feedback allowed the teachers to review and react to evidence on their teaching. It gave the teachers advance warning and a clear indication of what improvement is needed. Teachers were negotiated on each construct and this allowed them to think “why and how they are doing” type of thinking instead of “what they are doing.” It was a completely new experience for teachers. In order to avoid bias, only the researcher conducted observation assessments and conducted observations for two class hours in each session. The observation assessment was used as pre and post measures right after the repertory grid sessions with teachers. The researcher, while interpreting the data, referred to the observation checklists and observation notes as well as the feedback notes. The recordings were noteworthy because of the immediate impressions of the teachers and the researcher. Observation data were triangulated by follow-up interviews with the teachers in order to give feedback and clarify the notes on each construct during observation.

In addition to the above mentioned procedures, the researcher made use of a diary for each session (a 20-session diary). Detailed notes were taken by the researcher about each session, the procedures followed, materials used, reflections of teachers, issues arised in sessions, strengths and weaknesses of each session, the researcher’s reflections on the sessions, reactions of the teachers-to the ideas presented or negotiated, the materials used, what has been covered so far and needs of the teachers. Teachers’ presentation papers,

and the materials used for each session were collected. Besides this, teachers' logs as diaries were returned by them regularly at every Wednesday session.

An access corner was arranged for the use of the teachers (both for the participants and the other English language teachers of the school). The researcher and the teachers brought books, readers, tests, and articles. One of the teachers was in charge of supplying photocopies for the others. There was a photocopy machine, a networked computer, a printer, a board, an announcement board, a cupboard for the materials and files of the program, and a tea-coffee corner for breaks. The corner was convenient and easy to access for all participants.

A group network (group e-mail) was established in order to interact and communicate with each other and the researcher. All teachers shared their findings, reading articles or messages through the means of electronic media (internet).

Teachers invited each other to their schools and classrooms in order to share their situation. Teaching materials (such as posters, activity books, handouts, worksheets, or materials developed for their own use and students) were exchanged among teachers.

During the 20-weeks' period, the program involved input and classroom inquiry phases. The researcher aimed to create an atmosphere in which teachers felt free to develop their personal meanings, reflect on their learning and themselves, construe their roles as active participants and collaborators in view of their personal theories, beliefs, values, expectations as both active teachers and researchers.

In the program, the following procedure was followed (see Table 3.1).

Table 3.1 The Procedures Followed in the Study

TIME 1	Things Applied & Done	Process	Participants and Their Roles	Researcher and Her Role	Sessions
INPUT	ACTION	RESEARCH	PROCESS	1st Semester	2001-2002
At the very beginning of the Teacher Development Program	* Repertory Grid Elicitation 1 * Follow-up Interviews * Observation 1 Checklists & Observation Notes	Meeting & Needs Analysis	* 4 teachers from Private İçel College * 3 teachers from 3 State Schools	-Collaborator * Diary keeping (weekly regular) - Researcher's reflections on teachers' development	INPUT
September 26, 2001	*Feedback sessions * Ts' Logs after each session (Regularly) * Ts' reports on their perceived needs	Classroom Observation			
October, 2001	"Teacher Development and Teacher Training" "Reflective Teaching" & "Action Research" (Terminology, Literature) Research Tools	-Readings and discussions on ts' needs & reflections -Using tools in their classes	-Presentations & Talks on "Reflective Teaching" and other terminology in ELT	-Material supporter, -moderator -collaborator	INPUT
November, 2001	- "Teachers Learning" and "ss' learning problems" - "Classroom Problems of teachers and ss' problems in skills and coursebook criticism" - Awareness raising - "Small-scale Action Research in classes"	-Action Research Projects/ Article readings - Article reading on "Skills Teaching and classroom problems" in Action Research Study	-Pair- work Presentations and Discussions of Articles -Ts' own problem reports from their classes and their observation. (Action research cycle preparation and their way of solutions)	-Net-work supplier, -Internet and web-pages are introduced - Material supporter - Sending Action Research Articles to their e-mail accounts " Small-scale projects" supplier	INPUT

December, 2001	"Open University Video Cassette" watching -Criticism of cassette and ts' reflections "Classroom Research Designs"	-Awareness raising -Application and analysis of research tools -How to make classroom observation"	-Actively using tools and analysis of results and observing each others classes -Preparing Questionnaire and observation checklists	-Facilitator -Discussing results collaboratively	INPUT
January, 2002	"Generating Questions of Ts" "Brainstorming" -Clarifying ts' real problems -Preparing ts for project writing	- Identification of ts problems and narrowing down the problems for ts' classroom inquires -Reading ts' Action Research projects	Listing down the problems & putting them into order and talks on the questions for focusing	-Examples from classroom inquiries and project presentation samples -Negotiator	INPUT
TIME 2	Things Applied & Done	Process	Participants and Their Roles	Researcher and Her Role	Sessions
CLASS ROOM INQUIRY	PROCESS	(2nd Semester)	2001-2002		
February, 2002	-Ts' Action Research Project TopicS -Questionnaire and Analysis	-Classroom observations of ts -Narrowing down ts' problems -Identification of ts' problems	-Observants and active participants -Researchers -Collaborators	-Observer -Facilitator -Researchers	CLASS ROOM INQUIRY
March, 2002	-Voices from ts' classes -Application of different research tools for data gathering	-Awareness raising of ts for identification of problems and analysis of ts' questionnaires	-Researchers -Active participants -Active collaborators	-Researcher	CLASS ROOM INQUIRY
April, 2002	Reading Sample Action Research Papers	-Data Gathering and Analysis -Writing up Introduction of ts' projects	-Researchers -Active Participants -Collaborators	-Researcher -Material supplier -Facilitator -Collaborator	CLASS ROOM INQUIRY
May, 2002	* Repertory Grid Elicitation 2 *Follow-up Interviews * Classroom Observation Checklists & Observation Note Sheets *Feedback sessions	Writing up methodology sections of ts' projects	-Researchers -Active Participants -Collaborators	-Researcher -Material supplier -Facilitator -Collaborator -Observer	CLASS ROOM INQUIRY

So, the researcher's role in leading the discussions in the sessions was as facilitator, active participant and researcher. After each session, what would be covered for the next session was negotiated, decided and agreed on by both parties (the teachers and the researcher). Each teacher's role (if any presentation or discussion points or classroom inquiry problems/developments) was decided on before each session. In each session, what had been done in the previous session was discussed first and the topic and aim of the session were negotiated among teachers. Each teacher was free to ask questions, make comments on topics, agree or disagree with topics or his/her colleagues. The researcher avoided imposing ideas or interfering as much as possible. She acted as a "process moderator" in which she contributed to the discussion and gave individual support. Her role was to introduce the topic, discuss and maintain group roles and to structure discussions (Roberts, 1998). The first reason for this was to enable the teachers to be involved in a self-directed problem solving process. The second aim was to facilitate the process of gaining more experience through involvement in problem-oriented situations. Thus, the teachers would be able to have ownership of their problems and create their own solutions. Above all, the rationale was to enable them to see themselves as active participants in the process of learning as teacher researchers, personal scientists and reflective practitioners. The teachers' reflections on the issues, questions or comments, therefore, were appreciated and welcomed by the researcher to increase contribution and promote reflection. In doing so, the teachers gained benefits in their own sense of critical reflection while interacting with each other. This led them to construct a common ground for dialogue and critical reflection (Brookfield, 1994).

For the purpose of reflecting their comments, teachers were asked to keep (weekly) regular “learning logs,” (1999) (see Appendix 4) and return them to the researcher or to the file in the access corner. The aims of learning logs were to:

- reflect on the skills, knowledge, and material used throughout the sessions,
- identify areas of weakness highlighted in the reflections on the sessions,
- produce an action plan for development.

The reasons for teachers’ keeping learning logs were to encourage them to think about the process of continuous professional development and build the mindset of lifelong learning. The report consisted of personal reflections on the learning that has occurred throughout the sessions and on their personal and professional experiences. They were expected to develop a brief action plan on how they intend to respond to any issues/weaknesses identified.

There was no limitation on the amount of information and comment in their learning logs but teachers were asked to follow the format for the use of the researcher and for the sake of the analysis.

• **Action Research**

The teachers in this study were able to use action research to improve their own teaching based on Kelly’s personal construct theory and also to help raise the level of performance generally in their work situation. Action research is usually understood as one of a family of action inquiry technologies that complete two tasks in a single process. An action research study has a dual

role; action and research question/s (Ouedraogo et al., 1998 in Hughes, 2003). This distinguishes action research from other ways of generalizing knowledge and from other ways of solving practical problems.

The action research in our study involved the following cycle:

1. The teachers developed a **plan** of critically informed action to improve current practice. The plan was flexible to allow adaptation for unforeseen effects or constraints.
2. The teachers **acted** to implement the plan which was deliberate and controlled.
3. The actions were **observed** to collect evidence which allowed thorough evaluation.
4. **Reflection** on the action was aided by discussion among the teachers. Group reflection led to a reconstruction of the meaning of the social situation and provided a basis for further planning of critically informed action, thereby continuing the cycle. These steps were carried out in a more careful, systematic and rigorous way than that which usually occurs in daily practice (Kemmis & McTaggart, 1988, pp. 10-4; Zuber-Skerritt, 1992, p. 16).

So, the objectives of the researcher in this study of action research cycle were

- to develop teachers' awareness of their teaching styles as a system,
- to understand teachers' perceived needs and concerns,
- to develop teachers' teaching and thinking based on their strengths and weaknesses,
- to develop teachers' confidence and their ability to use English for professional purposes,

- to develop teachers' personal theories of teaching and learning by exploiting individual and collaborative experience,
- to provide up-to-date overview of language teaching developments through gaining insight into their knowledge and building upon it,
- to develop teachers' ability to make informed and principled professional decisions,
- to help the teachers co-operate with each other,
- to prepare teachers for being part of innovations in the future.

So as to achieve the above mentioned objectives, how the program was set up and dovetailed with the action research cycle went side by side will be given in detail in the following section.

3.4 Data Collection

Data for this study were collected from the teachers at the beginning, during, and at the end of the program (between September 2001 and May 2002). Repertory grids were filled out at the beginning of the program. After the administration of repertory grids, follow-up interviews, and classroom observations were conducted. After each observed class, the teachers were given feedback. The teachers' learning logs and the researcher's diary were kept throughout the program for data collection. During the semester, teachers were involved in designing data collection tools for the purpose of their own action research projects. At the end of the program, the second grids were administered and the teachers' project writing process was designed. The

teachers were guided and supported by the researcher through their own action research project writing process.

Following sections involve the repertory grids, the follow-up interviews (after the administration of the grids), the classroom observations, the follow-up feedback sessions, the teachers' learning logs, and finally the researcher's "diary" (Hughes, 1996).

3.4.1 The Repertory Grid

The repertory grid procedure followed in this study is an adaptation of those outlined in Sendan (1995, pp. 91-99). The elicitation (individual elicitation method) of elements and constructs, the repertory grid form (see Appendix 2) and scaling used in the repertory grid form, and the language used for data analysis were adopted from his study.

At the beginning of the repertory grid sessions with teachers, the grid was introduced to each of the participants and was explained as to how to fill it in. In terms of the validity of the data, the construct for each teacher was elicited from the participants rather than provided by the researcher. During the construct elicitation, the researcher avoided the imposition of constructs which was potentially irrelevant, inappropriate and against the nature of this study. Constructs elicited are merely verbal labels, and their meanings would be ascertained by follow-up interviews. The analysis of the grids was expected to give the researcher an idea of the teachers' already existing personal theories. The teachers were asked to write down their own constructs regarding the features that lead to effective language teaching by using their own words. To

do this, teachers were asked to think of three effective (E1-3), three average (typical) (T1-3) and three ineffective (I1-3) teachers that they have known and note them in order of effectiveness. Nine teachers (elements) were coded from 1 to 9 as E1, E2, E3, and T1, T2, T3, and I1, I2, I3 (see the repertory grid form in Appendix 2). The teachers' constructs were elicited using the triadic elicitation technique (see Sendan 1995, p. 95 for a detailed discussion of the technique). That is, the elements, *teachers they know*, were not supplied by the researcher. They were provided by the participants. The elements provided by the participants, and that were coded, were randomly chosen for the purpose of comparison. They were provided with random triads and asked to distinguish "which two of the three teachers were similar to each other and thereby different from the third." After the selection of pairs, they were asked "in what ways the two are similar to each other in a way that distinguishes from the third." Their responses were recorded on the "emergent" (similarity) pole. Then they were asked "what they thought made the third, single element distinct from the pair on the same dimension" and their responses were recorded on the "implicit" (contrast) pole. The same procedures were followed to elicit as many constructs as they were able to offer (Sendan, 1995, p. 96). The teachers were required to use English as a medium while filling out the grids. However, in case of difficulties in expressing themselves, (especially the terminology in ELT) what they meant was discussed. However, in some cases, constructs were elicited in Turkish and then translated into English. But what they would like to express was talked over and agreed upon. We have employed a five-point (1 to 5) rating scale. The teachers assigned each element a rating which reflected its relative position to construct poles (1 represented the closest fit to the similarity

pole, 3 the midpoint, and 5 the closest fit to the contrast pole). Then, they were asked to rate current self and ideal self as teachers on the same constructs. Later, they were asked to choose five constructs among the ones they had provided and to rank order them in order of importance. The rationale for doing this was, firstly, to find out each teacher's most important (top priority) constructs. Secondly, this process was to investigate whether these most important constructs have undergone any change in the analysis of content and structure, and whether they were observed in their teaching. Finally, the teachers were interviewed in order to check the constructs and ratings as well as to clarify any unclear points for the researcher. The reason for doing this was to enable the researcher to collaborate with the teachers in interpreting their grid data. This procedure was repeated at the end of the program (as a post measure). For the second administration of the grids, the teachers' previous constructs were provided without the original ratings and rankings. Each teacher was asked to work on his/her first grid. They were reminded that they might add new constructs or delete ones already existing in the grids. Then the teachers were asked to re-rate their constructs, and to rank order them once again.

Their grids were analysed by means of focus, content, and exchange and finally a socio analysis. The two grids were analysed and the differences between the two grids was expected to demonstrate whether or not the teachers had changed regarding content and structure of their constructs. In order to investigate what might have led the teachers to change, follow-up interviews were run and they were asked what and/or who played a role on their change (i.e., participants, input sessions, materials they used, presentations,

observed classes, personal experiences, the researcher, classroom inquiry, action research project writing or something else).

It is worth mentioning that the application of the grids at both times appeared to be appropriate as there were sufficient experiences in ELT for the teachers to carry out the task. That is, they did not have difficulty in terms of choosing elements and distinguishing among them as effective, typical and ineffective. Besides that, they did not have much difficulty in terms of verbalising the similarities or differences of teachers in their constructs. At the end of the grid administration, they were knowledgeable enough about what to do and how to express their constructs. So the second grid administration took less time than the first one.

3.4.2 Classroom Observations

For the classroom observations, the researcher produced an observation checklist and an observation note sheet adopted from the teachers' repertory grids (see Appendix 3 for observation note and checklists). That is, after each teacher's repertory grid administration was completed, the researcher prepared an observation checklist and an observation note sheets for each teacher differently. The necessary items in original repertory grid sheets were maintained. The teacher's name, observation date, and the observation number (1st or 2nd) were noted. The rating scale was kept in its original place and the teacher's emergent and implicit constructs (similarities and contrasts) were listed down with the same numbers as on the original repertory grid sheets. At the top of the sheets, high priority constructs of the teachers' were

written down. Only the element columns and teacher's ratings of constructs were omitted. The same items mentioned above were used both for checklists and notes. On the observation note sheets, each teacher's elicited constructs were observed in classes, and observed constructs were noted in detail by the researcher. All observable constructs elicited from the teachers were rated by the researcher according to the teachers' performance in class. That is, the observations of constructs were limited by what meaning was attached to the construct. In order to avoid bias, the researcher did not note down the teacher's own ratings of constructs for self as teacher. During the data analysis of behavioural changes of teachers, the teacher's ratings and the researcher's ratings were placed side-by-side and compared. One of the reasons for classroom observation was that the researcher gained a more accurate and deeper understanding of the teachers' values, structures, and conflicts from their actions (Ekmekçi, 1999, p. 30). The main reason was to see what consistency (if any) between their personal theories and theories in action. Then, the teachers' conceptual and behavioural changes (if any) were compared and contrasted.

After the two hour observation sessions, teachers were given feedback on their observed constructs. In addition to the observed constructs, the teachers' unverbaised constructs which was/were not elicited in the repertory grid administrations but their theories in use, and/or action in use were discussed by the teachers and the researcher. This led to awareness-raising of the teachers. This is best explained by Schön:

One of the problems which Schön has to address is that a person may not be able to state or describe his theory-in-use (Schön, 1983b, p. 116;

Argyris & Schön, 1974, pp. 9-10); another problem is that a person may attribute to himself a theory (an 'espoused' theory [Schön, 1975, p. 7]) incongruent with his actions (Schön, 1983b, p. 116) or theory-in-use (Schön, 1975, p. 7). A related and further difficulty is that there may be no behaviour which indicates a theory-in-use (Argyris & Schön, 1974, pp. 10-11). These difficulties Argyris & Schön label the problems of existence and of inference; their view is, however, that 'we know more than we can tell and more than our behavior consistently shows' (Argyris & Schön, 1974, p. 10). Argyris & Schön argue that 'if we know our theories in use tacitly, they exist even when we cannot state them and when we are somehow prevented from behaving according to them' (Argyris & Schön, 1974, p. 11). The difficulty to which Argyris & Schön then turn – the problem of learning – can be stated thus: 'How can we change an existing theory-in-use or learn a new theory-in-use when we cannot state what is to be changed or learned?' (Argyris & Schön, 1974, p. 10). The proffered answer? 'We must surface and criticize our tacit frames' (Rein & Schön, 1977, p. 243). Hence to the notion of reflection. (in Newman, 1999, p. 147-8).

The researcher's ratings of constructs were shown to the teachers right after the observations with the feedback in detailed notes taken during the observation by the researcher. To validate the researcher's checklists and notes, the interpretation of constructs were also consulted again with the teachers during feedback sessions. The aim of the feedback sessions was to enhance growth through reflection and analysis of actions and to lead to continuous improvement of the teachers when they see positive results from their efforts to

change. The feedback sessions also empowered critical reflection. That is, the feedback given by the researcher and the reflections of the teachers on the observed classes “helped the teachers develop a deeper understanding of themselves as teachers and so be better prepared to make decisions about their own teaching” (Richards, 1998, p. 152).

For Schön, “theories of professional practice are best understood as special cases of the theories of action that determine all deliberate behavior” (Argyris & Schön, 1974, p. 4).

3.4.3 Interviews

Another instrument employed in this study was interviews with the teachers. The interview schedule (see Appendix 5) was adopted from Sendan’s study (1995, p. 283). The interview procedure employed in this study has been discussed by Sendan (1995, p. 100-2). The researcher used this instrument in order to rationalise the use of follow-up interviews immediately after the repertory grid sessions. The interviews enabled the researcher to clarify the links through conversation and reflection. The interviews led to the teachers and the researcher to the construction, reconstruction, negotiation and exchange of personally significant relevant meaning. This is consistent with the constructivist view and reflective teaching/learning and also consistent with the nature of this study.

The first purpose of the interviews was to clarify the constructs that seemed unclear to the researcher. Interviews were aimed at the mirroring of personal theories. In the interviews, the researcher asked questions in order to

encourage the teachers to see things for themselves, rather than offering the researcher's interpretation or judgement. In some cases, the researcher needed to clarify certain points where connections might be made between what the grid told and the broad purpose which the teachers meant to address. It was best to guide the teachers to the insight rather than do it by him/herself. This led the teachers and the researcher to become "reflective" rather than "extractive." The researcher had the chance of reframing issues, thus, we could know what a construct meant to the teacher. The above mentioned follow-up interviews of the grids were structured as "the agenda was predetermined by the researcher" (Nunan, 1994, p. 150). The interviews were repeated after the second repertory grid sessions. Nearly all the teachers in this study added new constructs and the interviews were conducted on the constructs elicited from the teachers.

The second purpose of the interviews was to talk about the changes revealed in the exchange grid analysis and to see possible reasons for these changes. The second interviews were administered right after the data analysis was completed. The second interviews were semi-structured as the researcher had a general idea of where she wanted the interview to go, and what should come out of it. But the researcher did not enter the interview with a list of "pre-determined questions" (Nunan, 1994, p. 150).

The main aim of these interviews was to have a clearer understanding of the teachers' constructs about effective teaching and to elicit their opinions about the effects of the program on the teachers. During the semi-structured interviews, the teachers were asked to comment on the program as a whole and the changes (if any) during/after the program regarding their personal

theories and theories in use. The researcher also tried to get suggestions from the teachers which would contribute to further studies. The researcher took notes during the interviews and detailed the notes in her diary.

3.4.4 Diaries

The fourth type of data collection instrument was the diary. However, in this study, we will mention two types of diaries; the researcher's diary and the teachers' learning logs, which will be discussed separately in the following sections.

3.4.4.1 The Researcher's Diary

Diary-keeping is seen as one of the important tools in participatory action research. The researcher kept on the diary to reflect on her and the teachers' research practices during this study. It contained information about the researcher, what the researcher and the teachers did, and the processes of the research. It complemented the data yielded by the research methodology (Hughes, 1996). In the diary, the researcher recorded weekly developing ideas, thoughts and actions, and the real process of action research and reflective practice right after each session. It enabled the researcher to generate a history of the study, the teachers' thinking and the research process. It made it possible

- to see the summary of what happened each day (minimises the recall error)

- to see questions and topics for present and further studies and investigation,
- to reflect on what the researcher saw, guessed, thought, and observed in the sessions,
- plans for future action,
- to reflect on the researcher's practices, performance, behaviours, feelings and actions as a researcher,
- to generate a history of thinking and the research process.

The diary-keeping process enabled the researcher to form a basis for in-depth reflection. Besides this, it provided a record of events and happenings in sessions and observed classes, it gave a rich and first-hand account of the experiences of both parties (see Bailey, 1990). In addition, the researcher had the chance to clarify and relieve her feelings about the happenings which were constantly changing (in Bailey, 1990). This led the researcher to organise and formulate her thoughts in a more systematic way.

3.4.4.2 The Teacher's Learning Logs as Diary

The teachers in this study were invited to keep learning logs for the purpose of "data collection from the participants" for each session. The learning log used as a tool was adopted from the University of Wolverhampton webpage as a source. The logs were, later, developed by the teachers and the researcher according to the nature of this study. The reason for choosing learning logs instead of a diary was that it was structured and easy to use for the teachers and easy to evaluate for the researcher. Learning logs

encouraged the teachers to think about the process of continuous personal and professional development. Because of its structured nature, the teachers were expected to develop a brief action plan on how they intend to respond to any issues identified. The strengths of learning logs can be said as follows:

- It enabled the teachers to reflect on the knowledge and experience developed throughout the program.
- It encouraged them to identify areas of weaknesses highlighted in the reflections on the program.
- It produced an action plan for development.
- It involved the teachers in an experiential understanding of the nature of theories and actions, along with the rationale behind the procedures.

At the beginning of the study, we provided teachers a learning log in which items were written down and spaces left for the teachers' comments. The kinds of information in the logs included discussions of possible ways of achieving their aims (see Appendix 4). The researcher went through the items so as to explain the rationale as to why they were expected to keep the logs, and the points to be considered when involved in this process. The teachers were informed that the questions (items) were subject to change according to their practicality and use. In the first few sessions, the logs were returned in its original form to the researcher by the teachers. In the following sessions, the teachers complained that there were too many items to be covered and it took a long time to fill them out. The relevance of each item was discussed by the researcher and the teachers. Finally, some items were deleted and some other items were included. As a result, the teachers were happier with the logs which were rewritten with their contributions (see Appendix 4).

The collection process was carried out at weekly intervals. Logs were given importance so as to enable the teachers to do reflection on action. The logs collected were analysed and the teachers' reflections were provided as extracts in Chapter 4 and 5 (see the sections for data analysis of each teacher).

3.5 Data Analysis

The analysis techniques of this study were mainly based on the analysis of data obtained from the repertory grids, the follow-up interviews with the teachers, classroom observation notes and classroom observation checklists, and the feedback sessions (see Chapter 4). Above all the teachers' learning logs and the researcher's diary were used to triangulate the findings obtained through repertory grid data.

3.5.1 Repertory Grid Data Analysis

The teachers' repertory grid data were analysed by means of FOCUS, Exchange Grid Analysis and Sociogrid analysis program of RepGrid2 computer program. Repertory grid data, subsequent interviews and feedback were also subjected to content analysis. In this section, the computer program used for analysis and the procedures followed during the analysis are explained in some detail.

3.5.1.1 The RepGrid 2 Computer Program

The RepGrid2 (1993) computer program was developed by the Centre for Person-Computer Studies in Canada. Repertory grid (1993) is a computer-based tool providing an integrated set of tools for elicitation and analysis of elements and constructs in a given domain. It combines a number of different techniques, for construct elicitation, modeling, and comparison. The main tools in the RepGrid 2 computer program explained by Shaw and Gaines (1995) are as follows:

- *Elicitation tools* which accept specifications of elements within a domain and provide an interactive graphical elicitation environment within which a person can distinguish elements to derive his or her constructs within the domain. The resultant construct system is continuously analyzed to provide feedback prompting the person to enter further elements and constructs.
- *Modeling tools* use various forms of clustering and entailment derivation for the analysis and display of the construct systems elicited: FOCUS shows the system as a hierarchical structure; and PrinCom as a spatial map.
- *Exchange tools* extend the elicitation tools to share elements and constructs between people and allow the terms in the construct system derived from one person to be used by another in order to determine whether the two construct systems are different in any way. It can also be used by the same person looking at changes in their own construct

structures over time, for example: after reading a specific book, or exploring a particular domain.

- *Comparison tools* process results from several people to reveal the similarities and differences in their construct systems, or the same person at different times, construing a domain defined through common elements or constructs. It can be used to focus discussion among people on the differences which require resolution, enabling them to classify the disparities in terms of differing terminologies, levels of abstraction, disagreements, misunderstandings, and so on. (n. p.)

In this study, three programs (FOCUS grid, Exchange grid and Sociogrid) were used to analyse the grid data obtained from the teachers.

3.5.1.2 The Computer Analysis of the Repertory Grid Data

The repertory grid data obtained from the teachers in this study were analysed by utilising the RepGrid 2 computer program. The data we obtained in this study were subjected to three different analysis programs; Focus, Exchange and Sociogrid analysis. (For the discussions of the programs mentioned above, see section 3.3.1 in Sendan, 1995).

3.5.1.2.1 Focus Analysis

The Focus program was used in order to find out the structure of constructs obtained from 7 teachers both at Time 1 and Time 2. FOCUS sorted the grid for “proximity between similar elements and similar constructs” (Shaw &

Gaines, 1995, n. p.). The Focus analysis of grids (see an example in Figure 3.1) enabled the researcher to see matches and links between elicited constructs and elements. It “hierarchically clusters elements and constructs within a sub-domain prompting the expert to add higher-level constructs structuring the domain” (Shaw & Gaines, 1995, n. p.). More specifically, with the Focus program, we could present the information as a grid showing the specific values for all the constructs and elements, using shading as a guide to those values, with lower numbers represented by a lighter shade. The diagram also had dendograms showing the elements and constructs that had the greatest similarity statistically (PC Pack). To see the construct and element relationships separately helped us to explain the function of the repertory grid tool. The cut off point between the constructs and elements was 80%. That is, the minimum level for the construct and element associations was 80 per cent.

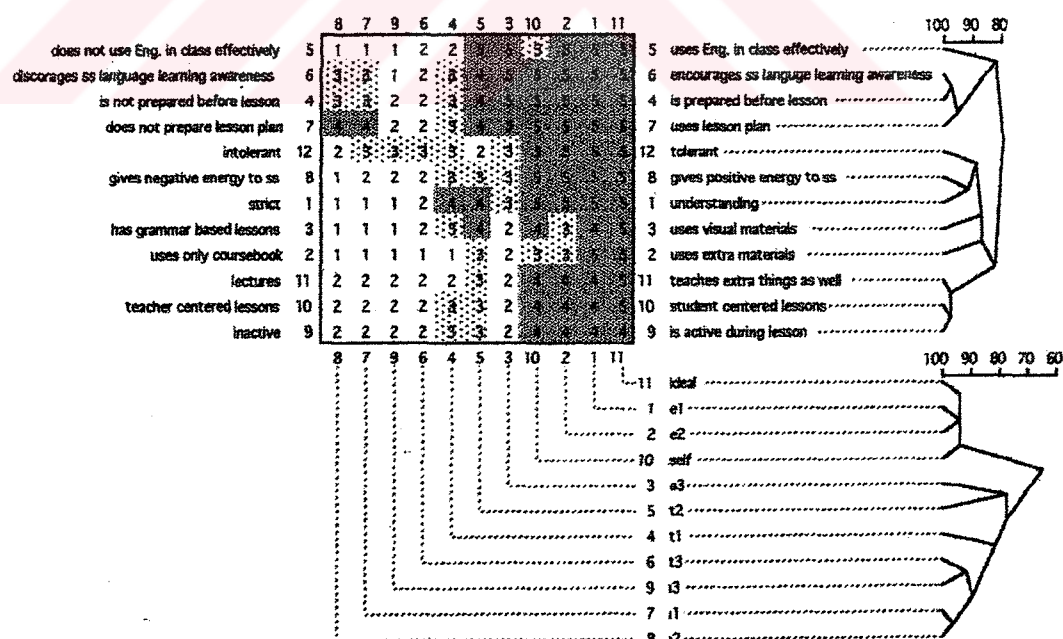


Figure 3.1 The FOCUSED Grid of a Teacher

3.5.1.2.2 Exchange Grid Analysis

The two grids obtained from the teachers at Time 1 and Time 2 were subjected to an exchange analysis (see Figure 3.2). To identify the patterns of structural change in teachers' personal theories between Time 1 and Time 2, we adopted an Exchange grid analysis. The analysis enabled the researcher to explore the constructs and elements that fell below 80%—the common significance level in repertory grid research and which is an indication of structural change. Those constructs and elements over this 80% level were considered as stable, indicating no structural change between Times 1 and 2.

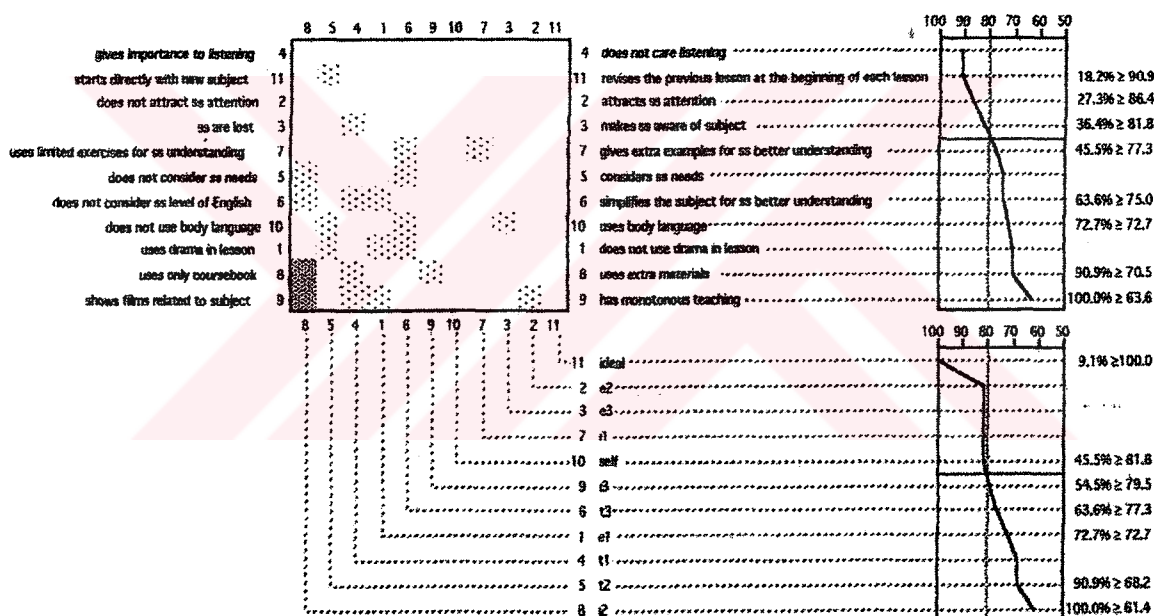


Figure 3.2 The Exchange Grid of a Teacher

3.5.1.2.3 Sociogrid Analysis

The grids of the teachers obtained at both Times 1 and 2 were subjected to Sociogrid analysis (see Figure 3.3). It enabled the researcher to gain insight into the nature of “commonality of construing” (Kelly, 1955) within and between the different groups of the teachers.

This technique is based on an assumption rooted in Kelly's commonality corollary that there may be areas of shared meaning among any group of individuals. Starting with the negotiation of a common set of elements by the group concerned, the program analyses the set of repertory grids elicited from the group. Each person is free to use his/her own personal constructs. Similarity between constructs is not based upon literal similarity but upon an operational definition of similarity in terms of the ordering of the element set. (Thomas McKnight & Shaw, 1976 in Pope & Shaw, 1979, p. 10)

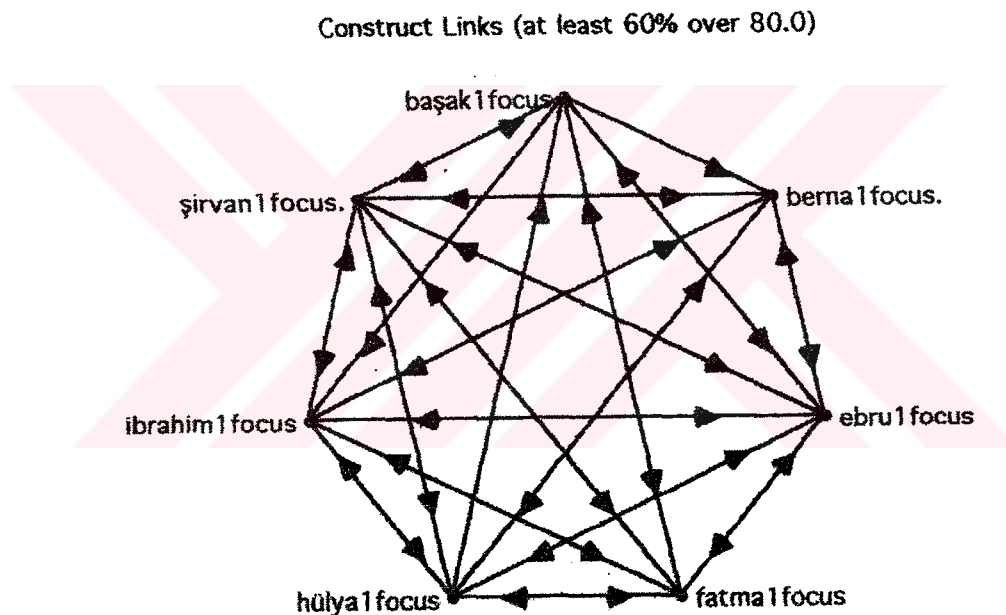


Figure 3.3 The Socionet of Construct Links at Time 1

3.5.1.2.4 The Content Analysis of the Repertory Grid Data

Repertory grid data were also subjected to content analysis. The analysis were carried out at three levels; the analysis of main construct

categories (both Times 1 and 2), the analysis of high priority constructs (at both Times 1 and 2), the analysis of isolated constructs (at both Times 1 and 2), and the analysis of new constructs (at Time 2 only).

3.5.1.2.5 The Analysis of the Main Categories of Constructs Obtained at Time 1 and Time 2

As for the analysis of personal theories of the teachers on the features of a teacher that lead to effective language teaching, we obtained 76 constructs both at Times 1 and 2. These constructs were categorised under 3 main categories (see Table 4.15 for the categories and 4.16 for the frequency of the constructs at Time 1 and Time 2):

- i) teaching behaviours (presentation, management and technical skills)
- ii) personal qualities
- iii) academic qualities

The first category was divided into 3 sub-categories so as to better interpret data in terms of frequency. The categories and the sub-categories were discussed with the ELT teachers at the University of Çukurova which the researcher has been working as a doctorate student and lecturer. 15 teachers were given a sheet on which the constructs were numbered and put them into alphabetical order. Teachers were asked to categorise the constructs. The categories were supplied by the researcher and teachers were left free to add new categories where necessary. After the collocation of the sheets, the above mentioned categories and the constructs representing each category were clarified and organised.

Table 3.2 The High Priority Constructs of a Teacher at Time 1 and Time 2
C:Construct CC: Common Construct/s

The Teacher	TIME 1	C	TIME 2	C	C C
ŞIRVAN	1.is prepared before lesson 2.uses extra materials 3.uses visual materials 4.student centered lessons 5.encourages ss' lang. learn. awareness	C4 C2 C3 C10 C6	1.uses visual materials 2.gives importance to personal development 3.encourages ss' lang. learning awareness 4.uses extra materials 5.well organised in teaching	C3 C15 C6 C2 C13	C2 C3

3.5.1.2.6 The Analysis of High Priority Constructs Obtained at Time 1 and Time 2

In the analysis of high priority constructs (see an example in Table 3.2), each teacher's five most important constructs (high priority constructs) which they rank ordered at Time 1 were compared to those at Time 2 so as to investigate whether any change had occurred between Time 1 and Time 2 in regard to content and structure of the constructs.

3.5.1.2.7 The Analysis of Isolated Constructs Obtained at Time 1 and Time 2

In the analysis of isolated constructs, each teacher's isolated constructs both at Time 1 and Time 2 were pointed out. Moreover, the isolated constructs at Time 1 were analysed to identify whether they changed their position or remained the same at Time 2. The rationale behind this was to see whether isolates changed and participated in a cluster or maintained their position.

3.5.1.2.8 The Analysis of New Constructs Obtained at Time 2

Each teacher's additional constructs obtained during the second administration of the repertory grids were analysed. The content of the constructs elicited from the teachers at Time 1 and Time 2 were compared, and the number of new constructs added were shown in figures (see Table 4.18). The reason behind this was to see if the teachers enlarged their repertoire of constructs between Times 1 and 2.

3.5.2 The Analysis of Classroom Observations

During the classroom observations after the repertory grid sessions at both Times 1 and 2, the teachers' elicited constructs were observed, notes were taken and checklists were filled out by the researcher (see Appendix 4). The constructs observed during the observations were taken from the researcher's notes and displayed in a table in a quantitative manner (see section 4. 2). The checklists on constructs observed and the comparison of ratings of both parties (the researcher's rating and the teachers' "self as a teacher" ratings on the elicited constructs) were displayed in figures (based on a 5 point rating scale used in repertory grids).

3.5.3 The Analysis of Interviews

After the repertory grid sessions and the observations of classes, teachers were interviewed. Each teacher was interviewed four times; twice after the repertory grid sessions and twice after each of the classroom

observations. The aim of interviewing the teachers after the repertory grid sessions was threefold. Initially, the interviews aimed to clarify points that might seem unclear to the researcher and to triangulate the findings and interpretations obtained through the repertory grids. Secondly, interview data was also used to investigate the possible reasons and causes of why the teachers incorporated new constructs into their grids at Time 2. The reason for asking this was to learn why the teachers believed adding new constructs to be important, and also, to investigate how the additional constructs were clustered or grouped among themselves. This enabled the researcher to see the position of Time 1 isolates at Time 2 and any changes in high priority constructs. Thirdly, the interviews attempted to gain more insight into the teachers' comments and suggestions regarding the change/s they revealed.

The data obtained during the interviews was used for the interpretation of the grid analysis. Additional questions asked on the effectiveness of the program in general, the effectiveness of the feedback sessions, the discussions on the observed constructs and teachers' comments, and finally the suggestions and explanations of teachers' espoused theories and theories in action were analysed in terms of content and behavioural changes. A representative set of extracts from the teachers' comments were used to support and triangulate the data obtained through repertory grids.

The purpose for interviewing with the teachers after their observations was twofold. Initially, it was to investigate to what extent the teachers reflected their espoused theories in their actual behaviours in class. This enabled the researcher to investigate what teachers did, what constructs were observed and to what extent they were related to their verbal reports, and to see if there was

any consistency between their personal theories and theories in action (for the use of behavioural change analysis).

3.5.4 The Analysis of the Researcher's Diary

Data obtained from the researcher's diary was subjected to content analysis. The representative reflections from the researcher's diary will be presented in different sections.

3.5.5 The Analysis of the Teachers' Learning Logs

Data obtained from the teachers' logs was subjected to content analysis. The content of teachers' logs filled in after each session will be given as reflections in extracts.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

This chapter presents a discussion of the results in light of the obtained data from the following instruments. The discussion will be based on

- the interpretation of each teacher's repertory grid data obtained both at Time 1 and Time 2 in regard to content and structure of the grids by focusing on Focus and Exchange Grid analysis in order to see the teachers' conceptual change,
- the interpretations of classroom observation notes and checklists in order to see behavioural change/s of the teachers as well as to investigate to what extent each teacher reflected his/her espoused theories on his/her actual behaviours,
- the interpretation of the teachers' learning logs and the researcher's diary.

The findings have been presented under the following sub-sections:

- The content and structure of personal theories of the teachers (see part 4.2)
- Commonality of construing between teachers (see section 4.3)
- Overall view of the content of personal theories (see section 4.4)

- Overall view of changes in content (see section 4.5)
- Overall view of the structure of personal theories (see section 4.6)
- The overall view of structural changes (see section 4.7)
- The overall view of high priority constructs at Time 1 and Time 2 (see section 4.8)
- The overall view of changes in teachers' construction of current self and ideal self between Time 1 and Time 2 (see section 4.9)

4.2 The Content and Structure of the Teachers' Personal Theories

In this section, teachers' personal theories regarding the features that lead to effective language teaching are presented. The construct and element links established by the teachers are displayed. The administration of repertory grids at both Times 1 and 2 (at the beginning and end of the study) helped to reveal the significant changes in the content and the structure of each teacher's personal constructs. Interviews, classroom observation sessions and the feedback sessions helped to triangulate and validate the data obtained through repertory grids.

4.2.1 BAŞAK

She has been teaching English for two years. She graduated from the University of Mersin. Her action research project title is “How can I improve my students’ reading skills and design a reading syllabus for different grades of students in my school” ?

4.2.1.1 The Content and Structure of Başak’s Personal Theories Regarding Effective Language Teaching at the Beginning of the Study

Başak’s grid data consists of 9 constructs and 11 elements. Her FOCUSed grid shown in Figure 4.1 demonstrates the construct and element trees drawn at 80% cut off point.

- **Construct Links**

In Başak’s FOCUSed grid, there appears one main construct cluster consisting of two tight pairs, one rather loose pair, and three isolates, 2 being more highly linked to the rest of the constructs.

At the top of the grid, two of Başak’s most important constructs, *is prepared before lesson* (C2) and *uses extra materials* (C4) form a pair loosely at 79.5% match level. At a lower level, (77.3%), *gives importance to speaking* (C5) remains in isolation, with a direct link to this pair. Therefore, teachers who are prepared before lesson and teachers who use extra materials are associated with those who give importance to speaking.

FOCUS: başak1focus

Elements: 11, Constructs: 9, Range: 1 to 5, Context: effective lang. teaching

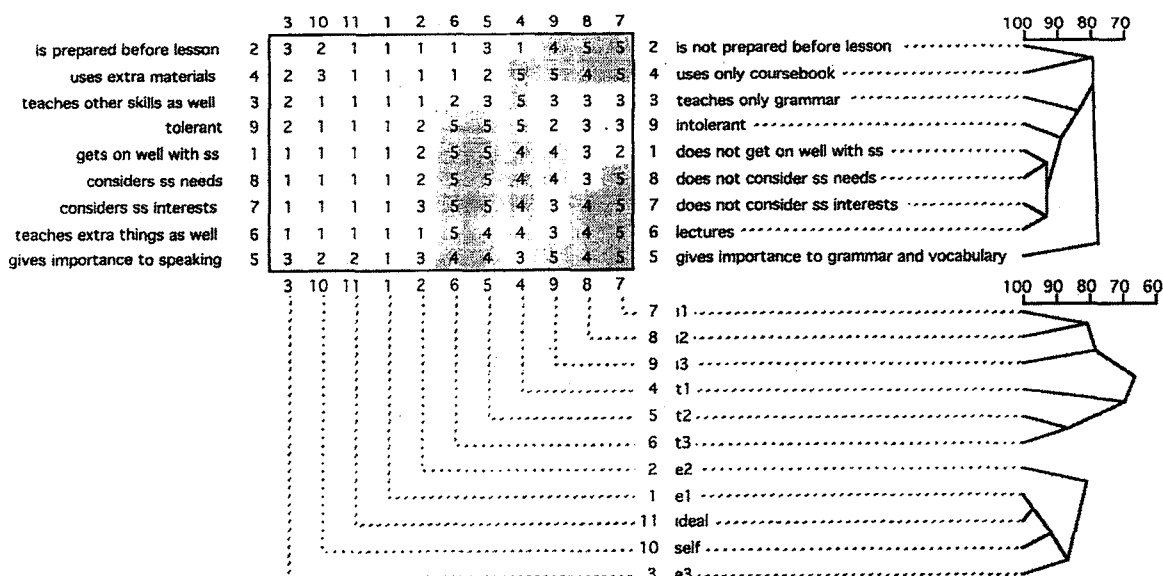


Figure 4.1 Başak's FOCUSED grid at Time 1

When we look at the main construct cluster, we see that constructs *gets on well with ss* (C1) and *considers students' needs* (C8) are viewed similar at the level of 93.2%. Başak explains the rationale behind her thinking as follows:

Extract 1

Teachers should consider students' needs and expectations from the course, and learning styles. So, as a teacher, I try to understand what they need, what they are good at as well as bad at one-by-one. Later, I prepare new strategies, materials and learning atmosphere accordingly.

This makes my class more relaxed and we, the teachers, and the students can work in harmony. So, I believe that I have no problems with my students personally and professionally from that perspective.

Similarly, at the same level, (93.2%), two of Başak's top priority constructs *considers students' interests* (C7) and *teaches extra things as well* (C6) associate with each other. That is, she believes that teachers who get on well with students are those who consider students' interests. The comments on the importance of the way she approaches to these constructs are as follows:

Extract 2

Teachers should be able to use extra things in class such as interesting reading passages, interesting topics and daily matters. Such materials bring variety, so students' motivation increases. If a teacher brings different materials and plus chooses those materials according to students' interests, they become more effective learners. So, their language learning becomes faster and long-lasting.

Moreover, we observe that the constructs, *teaches other skills as well* (C3) and, one of her most important constructs, *tolerant* (C9) are placed in isolation, having loose links with the constructs in the main cluster (C1, C8, C7, and C6). In fact, C9 is one of her top priority constructs at Time 1. But she cannot associate this feature with the other features of an effective language teacher yet. She might need some more time for associating the features. These two isolated constructs (3 and 9) are linked to each other at a 84.1% match level.

What is noteworthy in Başak's Time 1 grid is that, except for one, all of her constructs are related to the personal qualities of teachers. She considers effective language teachers from the view of personality rather than teaching behaviours and academic qualities. She gives more importance to personality rather than the other characteristics of teachers such as being tolerant towards students and getting on well with students.

- **Element Links**

The FOCUS analysis of Başak's grid produced two main element clusters (see Figure 4.1). In the first main cluster, we see that all her ineffective teachers and typical teachers form separate groups. Her ineffective and typical teachers form different groups among themselves and in the right order (from the most to the least effective). We might say that there is a clear cut pattern regarding the features of typical and ineffective teachers.

We see that while I1 and I2 are matched at 80.6%, I3 is subordinated (i.e., included the features of I1 and I2 as its elements). I1 and I2 match at 77.8% level. Thus, we can assume that Başak thinks that ineffective teachers possess very different characteristics than that of typical and effective teachers. Moreover, the distinguishing features of ineffective teachers are relatively close to each other.

In the same element cluster, towards the middle of Başak's Time 1 grid, we see that her typical teachers form a sub cluster in the right order. Başak perceives her T2 and T3 as similar to each other (at 86.1% match level). Her most typical teacher, T1, subordinates this pair loosely, at 69.4% level. She seems to believe that while her T2 and T3 have the similar characteristics, her T1 has not very close relationships with her T2 and T3.

In the second element cluster, the most and highly related elements of this cluster are E1 and her ideal self as teacher at 97.2% match level. At the level of 91.7% self as teacher subordinates this element pair, and 86.1% match level another element, E3, subordinates the pair (E1 and ideal self as teacher) at 86.1% level. E2 remains in isolation.

When we look at Başak's self perceptions, we see that she places self as teacher among her effective and ideal self as teachers. Hence, we assume that Başak holds the features of effective and ideal self as teachers. She sees her current self who is similar to her ideal self in six out of nine constructs. She seems to be undecided on three constructs. These 3 constructs are: *is prepared before lesson (C2)*, *uses extra materials (C4)*, and *gives importance to speaking (C5)*. Two of her constructs (C2 and C4) that she seems to be undecided on are two of her top priority constructs as well and these three constructs constitute a construct cluster, three of which are loosely linked to each other.

If we look at her Time 1 grid, it is noticeable that she seems to perceive that an effective teacher should be a prepared teacher and be able to use extra materials by giving importance to speaking besides grammar and vocabulary. She may think on these constructs and want to achieve these qualities in order to be identical to her ideal self as teacher and her most effective teacher.

Placing her effective teachers not in the right order (from the most to the least), she seems to think that she has not got persistent views regarding the distinctive features of her effective teachers. For example, her second most effective teacher (E2) remains in isolation, having some qualities of her effective teachers, and is not seen close to her most effective teacher (E1), ideal self and her current self. On the other hand, her E3 is seen much closer to her current self and this element is placed in tight cluster with her effective teachers and her ideal teacher.

4.2.1.2 The Content and Structure of Başak's Personal Theories Regarding Effective Language Teaching at the End of the Study

Başak's grid data consists of 19 constructs and 11 elements. Başak's FOCUSed grid illustrated in Figure 4.2 demonstrates the construct and element trees drawn at 80% cut off point.

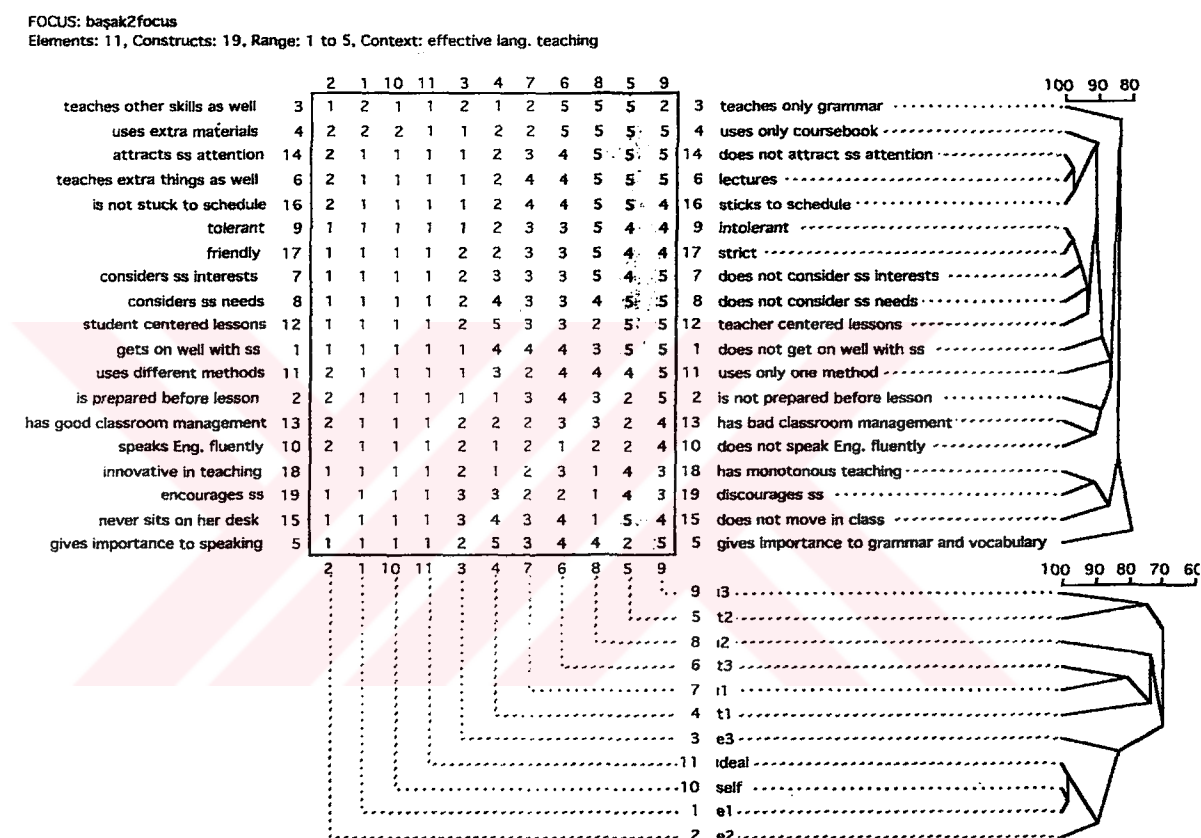


Figure 4.2 Başak's FOCUSed grid at Time 2

- **Construct Links**

At Time 2, Başak's FOCUSED grid reveals 1 big cluster, consisting of 3 main clusters; one is tight and two other rather loose clusters, and 4 other isolated constructs. If we look at the first cluster, we see the largest cluster containing two sub clusters—one is small and the other one is relatively larger

clusters--of the two clusters; one contains a tight pair and a subordinate construct, and the other one contains a tight pair and three subordinated constructs tightly linked with the pair. The second main cluster is rather loose and consists of 3 constructs; a pair and a subordinated construct. Between the two main clusters, we see two isolated constructs close to the constructs in the clusters. The last main cluster consists of 3 constructs; a loose pair with a subordinated construct and one isolated construct close to this cluster.

In the first sub cluster, *attracts students' attention* (C14) and *teaches extra things as well* (C6) form a tight pair at 97.7% match level. At the same level of match, *is not stick to schedule* (C16) subordinates this pair closely. This may mean that, in Başak's view, there is a strong relationship with a teacher who attracts students' attention, teaches extra things as well as with a teacher who does not stick to a schedule. Başak explains how she perceives these three constructs as follows:

Extract 3

Attracting students' attention and being able to use extra materials in class go side by side. If you teach something extra in class, this changes the classroom atmosphere, and you can attract students' attention there. If you want you can even use the coursebook with the extra materials. But if students know that they are limited with their coursebook they may feel some degree of boredom. Teachers should not stick to the school schedule strictly. They should leave space for freedom. The aim should be to teach whatever there is in the schedule by attracting students' attention through creating a relaxed atmosphere.

In fact, construct 16 is one of Başak's top priority constructs. During the second half of the program, which began in the 2nd semester in the school year, she talked with her students and decided to eliminate some of the reading passages in the coursebook since they were not suitable for her students' interests. She replaced them with extra reading passages chosen according to students' level and interests. In her learning log, she states that

Extract 4

This was a nice change for both my students and myself. I must confess that the previous reading passages were boring for me to teach. Now, my students are looking forward to learning new passages eagerly.

Başak's interpretation of her construct system is subject to revision or replacement (Kelly, 1955). In the same sub cluster, *uses extra materials* (C4) remains in isolation with the constructs C14, C6, and C16. She might need some more time to associate this characteristic with the other characteristics of an effective language teacher

When we look at the second and the larger sub cluster in the main cluster, we see that Başak associates *tolerant* (C9) and *friendly* (C17) very highly at 97.7% match level. The constructs, *considers students' interests* (C7) at 95.5%, *considers students' needs* (C8) at 93.2%, and *student centered lessons* (C12) at 93.2 levels subordinate this pair (C9 and C17). To Başak, teachers who are tolerant and friendly consider students' needs and interests. And such teachers have student centered lessons. In other words, she seems to believe that, in order to create a student centered classroom, teachers should be friendly and should be tolerant towards their students. Besides this, such teachers also consider their students' needs and interests. The features of

student centered lessons and teachers' behaviours and attitudes she associated were observed in her classes by the researcher.

In the second main cluster, Başak associates *has good classroom management* (C13) and *speaks English fluently* (C10) highly at 90.9% match level. One of her top priority constructs, *is prepared before lesson* (C2) subordinates the pair at 88.6% match level. Drawing upon this organisation, we may speculate that Başak assumes that if a language teacher can speak fluently, then she can control her class effectively. Such teachers are those who are prepared to their classes.

In Başak's grid, the constructs *gets on well with students* (C1) and *uses different methods* (C11) and *teaches other skills as well* (C3) seem to be isolated. However, as her rank ordering indicates, these constructs are three of her high priority constructs, and the fact that (C1) and (C11) link all her constructs at 86.4% , and (C3) at 84.1% levels. It is very difficult to interpret how she may have related one personal quality (C1) with a presentation skill (C11) closely related to each other and in a relationship with another personal quality (C3). It may be that she thinks all the other constructs in her Time 2 grid which refer to teaching behaviours and personal qualities lead to teaching all skills effectively by using different methods of teaching according to the nature of subject and also conveying those knowledge to students in a well established manner with students, which she sees three of the most important characteristics of an effective language teacher.

In the last cluster, we observe that she forms a tight link between *innovative in teaching* (C18) and *encourages students* (C19) at 90.9% match level. The construct, *never sits on her desk* (C15) subordinates this pair loosely

at the level of 86.6%. A teacher who is innovative and encouraging her students can be considered as a teacher who never sits on her desk. At a lower level of match, the construct, *gives importance to speaking/gives importance to grammar and vocabulary* (C5) is clustered with the constructs (C18, C19, and C15) in this cluster. Hence, we speculate that these constructs reveal her perception of features of an ineffective teacher. Namely, *has monotonous teaching* (C18), *discourages students* (C19), *does not move in class* (C15), and *gives importance to grammar and vocabulary* (C5).

- **Element Links**

Başak has not got a clear view of the features that distinguishes typical teachers from that of her ineffective teachers at her Time 2 grid. Another thing worth mentioning is that the level of similarity of effective teachers is higher than that of her typical and ineffective teachers. That is, Başak construes the effective teachers, ideal self and her current self as teachers in a group more similarly than the teachers in typical and ineffective teachers' group.

In Başak's grid at Time 2, we see two main element clusters, a pair and an isolated element. At the top of element set, I3 and T2 are viewed as a pair at 75% match level. Towards the middle of her element set in the first cluster, we see that T3 is seen as related loosely to I1 at 80.3% match level. I2 and T1 subordinate the pair loosely at 73.7% match level. Hence, we may speculate that Başak has lost her clear views on the feature of teacher groupings as she had at Time 1 grid and started to review and reorganise her typical and ineffective teacher groupings in her mind. At Time 2 grid, she does not seem to have constituted a clearer view on the features of these teachers yet. This may

be due to newly added constructs she has incorporated into her existing belief system. Under the light of her new repertoire, Başak has still much room for further development in her conceptual framework in relation to how she construes the teachers she knows. She seems to think more critically about her teachers and to be trying to reorganise her thinking. The association she made, we believe, indicates her perceived needs for development on certain areas of her own teaching. She reconsiders her teachers according to her improved system.

In the second main element cluster, effective teachers, ideal and self as teachers are grouped together. We see a tight relationship between elements. It is easier to make a grouping of effective teachers for her. The reason for that might be that she has got much clearer views about the features of effective and ideal teachers. She construes her current self, her most effective teacher (E1) and ideal self as teacher very similar to each other at 98.7% match level. Her second most effective teacher (E2) subordinates these element sets at 89.5% match level.

Her most effective teacher, E3, is viewed as having the characteristics of all teachers (effective, typical, and ineffective) as well as self as a teacher and ideal and self. E3 is not viewed as similar to any of her teachers, but remains in isolation. This might be because of being unsure of the characteristics of her least effective teacher she believes she knows. The most highly related element of E3 is her ideal self as teacher at 82.9% match level.

When we look at her ratings for self as teacher, it can be noticed that while she construes herself closer to the preferred construct pole on 18 constructs out of 19, she seems undecided about herself on one construct

which is *uses extra materials* (C4). The general pattern in Başak's rating of self as a teacher at Time 2 suggest that she identifies her current self with effective teachers and ideal self as teacher. Moreover, she seems to identify herself as effective as the most effective teacher (E1) she knows and close to her ideal self.

Changes Observed Between Time 1 and Time 2

- **Content**

The analysis of Başak's two grids in regard to content yields noteworthy changes. We see that Başak has incorporated 10 additional constructs. Başak displays a larger repertoire of constructs in her second FOCUSED grid. Ten additional constructs in her second grid are as follows: *uses different methods* (C11), *student centered lessons* (C12), *has good classroom management* (C13), *attracts students' attention* (C14), *never sits on her desk* (C15), *is not stuck to schedule* (C16), *friendly* (C17), *innovative in teaching* (C18), and *encourages students* (C19). If we look at the additional constructs, we observe that the majority are concerned with teaching behaviours, personal qualities come next. She added only one construct related with academic quality. Another matter of interest is the fact that Başak has cited 2 of her new constructs as her most important constructs at Time 2 and one of her other top priority constructs, *is prepared before lesson* (C2), remained as one of her most important constructs in the rank order in both Times 1 and 2.

Başak's focus for an action research project was on "Reading Skills". The reason for the addition of these 10 new constructs might be due to the process she has been involved in during her classroom inquiry and project writing. The construct change might depend on Başak's mental development,

mood and contrasting perceptions of her world. When explaining why she has added these 10 new constructs, she states that

Extract 5

During my research, I became more reflective. I considered both “seeing” and “acting” to enhance the possibilities of improving students’ reading skills through experience. It was not easy to gain experience. Because every new step brought something new; a new decision, a new act, a new strategy, and so on. The more experience I gained the more I became reflective. The circle went around and around.

According to her statement, we may suggest that a genuine learning experience has been created. This brought new judgements, demonstrated in her new constructs, new meanings, new reconsideration, and new demands. In line with Loughran’s (2002) explanation, we may state that the constant demands of the above factors might have filtered her conscious and unconscious actions.

- **Structure**

The discussion about the structural changes in Başak’s grids at Times 1 and 2 will be based on the exchange grid analysis below.

4.2.1.3 The Exchange Analysis of Başak’s Time 1 and Time 2 Grids

The Exchange of Başak’s grids at Time 1 and Time 2 reveals structural changes that took place both in her constructs and the elements. The overall element consensus is 36.4% and the construct consensus is 22.2% over 80% match level.

başak1 focus consensus-with başak2 focus

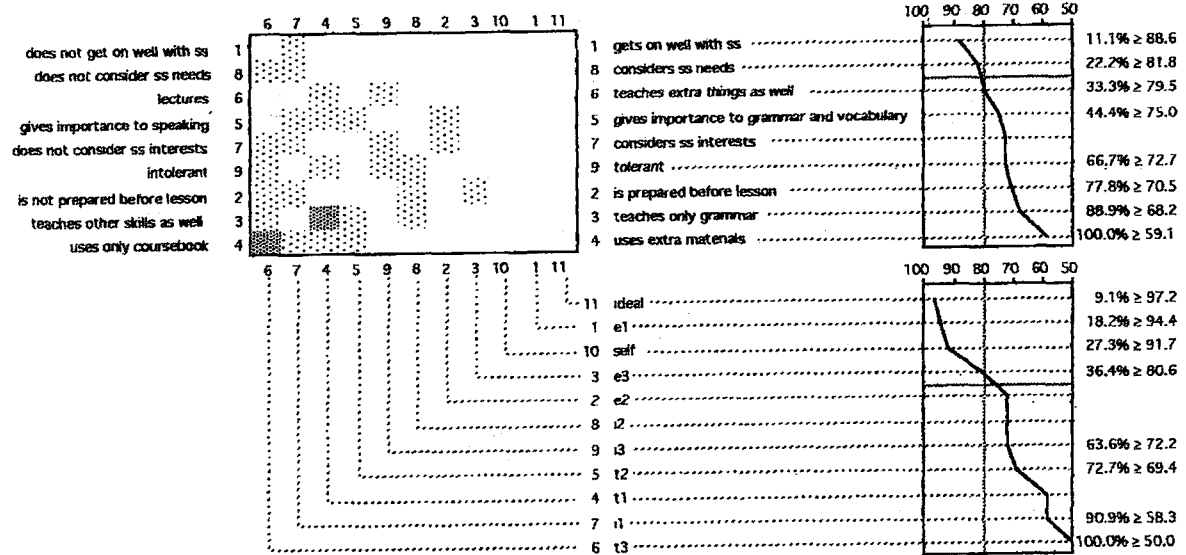


Figure 4.3 The Exchange Analysis of Başak's FOCUSED 1 and FOCUSED 2

Grids

- **Construct Changes**

The significant changes at 80% cut off point took place in 7 out of 9 constructs (see Figure 4.3). These changes from the least to the most are (C6;79.5%) *teaches extra things as well*, (C5;75%) *gives importance to speaking* (C7;72.7%), *considers students' interests*, (C9;72.7%) *tolerant*, (C2;70.5%) *is prepared before lesson*, (C3;68.2%) *teaches other skills as well*, and (C4;59.1%) *uses extra materials*.

At Time 1, while *teaches extra things as well* (C6) was associated with *considers students' interests* (C7) very highly at 93.2% match level, it formed a sub cluster with two of her new constructs, *attracts students' attention* (C14) and *is not stuck to schedule* (C16) at 97.7% match level and *uses extra materials* (C4) subordinated this sub cluster at 90.9% match level. In fact,

construct 6 was one of her top priority constructs at Time 1 and later it formed a sub cluster with one of her Time 2 top priority construct (C16). That is, Başak construed that a teacher should consider students' interests while teaching extra things in class, which is very consistent with the comment and application she made in the content part of this unit. However, this construct showed a structural change pattern advancing from general to specific and is viewed that only a teacher who is not stick to schedule can teach extra things in class and these new materials should attract students' attention.

The construct, *gives importance to students' speaking* (C5) remained in isolation, having loose links with a pair of her two most important constructs, (C2 & C4) at Time 1. Giving importance to students' speaking is construed as an important characteristic of teachers who are well prepared to their classes and use extra materials in class and those who give importance to speaking, not only grammar and vocabulary at Time 1, construct 5 kept it's isolated position at Time 2 and had links with a cluster consisting of 3 new constructs (C18, C19, and C15). Başak started to believe that teachers who can teach not only grammar and vocabulary but speaking as well have the characteristics of teachers who are innovative, active and those who encourage their students in class.

Another construct that showed significant change is *considers students' needs* (C7) had a direct link, as her first most important construct at Time 1, with *teaches extra things as well* (C6). This construct placed in the largest sub cluster at Time 2, and subordinated (with construct 8 and 12) the pair, *friendly* (C17), and *tolerant* (C9). She began to construe that being friendly and tolerant

in class are the components of student centered lessons and in these classes teachers consider students' needs and interests.

Is prepared before lesson (C2) is another construct that showed significant change at Time 2. Being prepared was associated closely with using extra materials besides coursebooks at Time 1. However, at Time 2, this construct, as one of her top priority constructs again, subordinated 2 of her new constructs (13 and 10), *has good classroom management* and *speaks English fluently*. Teachers who are prepared are construed as those who have good classroom management and speak English fluently. Başak stated that

Extract 6

English language teachers should be fluent speakers. If one speaks English fluently, students easily notice this. The class becomes more meaningful since the communication channel with students will be in English. That is, students listen to their teachers and follow the course eagerly in order not to miss what has been said in class. So, controlling the classroom becomes easier and I believe, there is no management or control problems left. Of course, before everything else, teachers should know what to teach and how to present it.

Next, while *teaches other skills as well (C3)* was an isolated construct at Time 1, it remained in isolated position at Time 2 and became her second most important construct having direct links with the construct cluster C18, C19 and C15, and associated with all cluster loosely. This construct was explained as follows:

Extract 7

In most of the schools in Turkey, language teaching is understood as the teaching of only grammar and vocabulary. What about the other skills? Writing, reading, speaking and listening are neglected skills in our language teaching system. They are neither given enough importance nor priority. Teachers should be able to teach all skills equally.

The last construct that showed significant change is *uses extra materials* (C4). This construct was associated with *is prepared before lesson* (C2) at Time 1. In fact, these two constructs are two of Başak's most important constructs at Time 1. However, at Time 2, construct 4 lost its links as a pair and subordinated the pair of *attracts students' attention* (C14) and *teaches extra thing as well* (C6) with another subordinated construct *is not stuck to schedule* (C16).

The exchange analysis of Başak's Times 1 and 2 grids display that she seemed to have gone through a process of reorganisation of most of her constructs (more than two thirds of her constructs).

• Element Changes

When we examine the changes that took place in the element structure, we come up with changes in the way Başak perceived E2 (72.7%), I2 (72.7%), I3 (72.7%), T2 (69.4%), T1 (58.3%), I1 (58.3%), and T3 (50%) (see Figure 4.3).

In the first grid, while E2 was placed in isolation, it subordinated ideal and self as teachers with E1 at Time 2. At the beginning of the study, I2 formed a loose links with I1. However, it subordinated the pair of T3 and I1 at Time 2. I3 subordinated I1 and I2 at Time 1, this element formed a pair with T2 at Time2. On the other hand, while T2 formed a pair with T3 at Time 1, it formed a pair

with I3 at Time 2. T1 subordinated the pair, T2 and T3, it was placed in a larger element cluster consists of I2, T3 and I1 and subordinated T3 and I1. At the beginning of the study, I1 formed a pair with I2 and T3 formed a pair with T2. However, at the end of the study, I1 formed a pair with T3.

Taking into account the above associations she made, we may suggest that throughout the program, Başak had had experiences that led her to reorganise her perceptions. Consequently, Başak's view on the features of typical teachers and of the ones she considered to be ineffective has changed. However, at the end of the study, we still do not see a clear cut pattern for any of the three categories of teachers. This may indicate that Başak needs some more time and experience to build up a clearer pattern and closer level of similarities among her elements in her mind.

Başak's views on the benefits of the program implicitly underlined this need in the following interview account.

Extract 8

I have tested my ideas and beliefs during the process. I have changed some parts of my teaching and became more self confident. But this does not mean that I am perfect. I will continue to analyse my problems and ideas and seek new ones. Analysing my beliefs and thinking made me more aware of myself and my actions. This will continue during my teaching career.

• Isolates

Başak's Time 1 grid revealed 3 isolated constructs which are *teaches other skills as well* (C3), *tolerant* (C9), and *gives importance to speaking* (C5).

Construct 3 became one of her most important constructs in the rank order at Time 2, and leaving its isolated position, had direct links with 3 of her new constructs at Time 2 (18, 19, and 15). We observe that new constructs that entered into Başak's belief system provided a linkage between her previous and new constructs. This is mentioned in Kelly's (1955) fragmentation corollary, which says that "the constructive alternativist can test out new hypotheses without having just to discard the old hypotheses/constructs" (Pope, 1985).

Başak's isolated construct *tolerant* (C9) at Time 1, was placed in the largest sub cluster in her belief system and was associated with her 2 Time 1 and 2 Time 2 constructs. And Başak started to believe that tolerance has direct links with being friendly, considering students' needs and interests for student centered lessons. She began to think that language teaching classes should be student centered. In order to create a student centered classroom, she holds the belief that teachers should consider their students' needs and interests and be friendly and tolerant in class. At Time 1, she held the belief that tolerance is an important feature of language classes but did not directly relate it to any part of her construct system. However, with the new experiences, she started to see tolerance as an essential aspect of student centered classes.

The last construct which was isolated at Time 1 grid of Başak's belief system was *gives importance to speaking* (C5) is clustered with C18, C19 and C15. That is, Başak seems to think that giving importance to speaking, not only grammar and vocabulary in class, helps teachers to be more innovative and active in class and these features are seen as an encouraging factor for the students' sake.

- **New Constructs**

At Time 2, Başak revealed 10 new constructs (10,11, 12, 13, 14, 15, 16, 17, 18, and 19) as explained in the content analysis of Başak's grids. The integration of these ten new constructs are construed as follows: Construct 14 and 16 were associated with 2 of her old constructs and formed a sub cluster. Construct 16, becoming one of her top priority constructs at Time 2, was perceived as 'not having stuck to schedule brings with it the need for using extra materials, not lecturing but teaching extra information and knowledge to the class in order to attract the students' attention'.

Construct 17 and 12 were associated with 3 of her Time 1 constructs (9,7, and 8) and formed a sub cluster. Using different methods (C11) was not perceived as having direct relationships with any of her constructs but having relationships with the clusters. Two of her new constructs formed a pair (C13 and C10), and subordinated by one of her top priority constructs, (C2). Being prepared before the lesson is construed similarly with having good classroom management and speaking English fluently. On the other hand, 3 of her new constructs (15, 18 and 19) were associated similarly and formed a small cluster. C5 was associated loosely with this small cluster.

For the constructs she added (12, 13, 14, 15, 16, 17, and 18), she made the following statement.

Extract 9

In the practice settings, I have developed a range of ways of viewing my focus problem in detail. For example, I negotiated a reading schedule with my students. We had only reading passages in our hands in the classroom. The newly chosen passages had to be introduced to the

students for their attention more. I had to be innovative in terms of bringing some fresh air into classroom. I brought different topics and used different examples from daily life; mostly from their life experiences. I even brought my private life into the classroom as a resource. Thus, my class became more student centered. I sometimes had problems in classroom management because classes became much noisier but more active. I had to create a friendly atmosphere. The best way I found for to get the students' attention and create a more friendly atmosphere was when I walked into the classroom without sitting on my chair. This increased their motivation. The feedback I got from my students was "this is a better teacher, not having a coursebook by itself and we know that in the next lesson, we will not continue with only the coursebook, which is routine."

For the constructs 11 and 19, she expressed the following.

Extract 10

For each lesson, I changed my teaching routine and for a new reading passage, I brought different methods to class, such as; silent reading, using translation, negotiating the plot in dialogues, storytelling, talking about setting and characters, and so on. This was a nice change for my students. And I believe, using different methods of presenting a subject or a skill encouraged their learning, helping them become better readers. I, also, got positive feedback from the school principals and the families. Similarly, I investigated my energy and ability. For next year reading classes, I am thinking about preparing a reading curriculum for my

department, arranged according to the students' level, needs and interests.

In light of this new experience, Başak seems to enlarge her belief system and change her thinking system. So, we may conclude that her new constructs allowed her to make a wider range of cross reference or clusters than her previous belief system. By using a variety of different subsystems, Başak seems to make sense of what is happening in her thinking system, which is quite reasonable and natural if we consider the process she has been involved in.

- **High Priority Constructs**

The construct, *is prepared before lesson* (C2) has consistently been one of Başak's top priority constructs between Times 1 and 2. At Time 1, this construct formed a loose pair with *uses extra materials* (C4), which is another top priority construct at Time 1, at 79.5% match level. However, at Time 2, this construct subordinated the pair of *has good classroom management* (C13) and *speaks English fluently* (C10) at 88.6 % match level. While viewing, being prepared and using extra material as related to each other and as important features of an effective language teacher at Time 1, Başak began to view being prepared as being closely related to classroom management and being a fluent English speaker at Time 2. Başak associates 3 constructs from 3 different categories. *Uses extra materials* and *is prepared before lesson* are two of the most frequently cited top priority constructs of the teachers in this study.

4.2.1.4 Başak's Behavioural Change Between Time 1 and Time 2

In Başak's exchange grid, we see that she has shown significant changes on 7 out of her 9 constructs which are constructs 2, 3, 4, 5, 6, 7, and 9. Her classes were observed twice throughout the program in order to see whether there is consistency between her conceptual change and behavioural change. Başak has shown growth on these constructs, which must "necessarily involve change" (Pennington, 1990).

Table 4.1 Başak's Time 1 Observation

Construct Number	CONSTRUCTS	Başak's rating for self as teacher	Observer's rating
C1	Gets on well with students	1	1
C2	Is prepared before lesson	2	2
C3	Teaches other skills as well	1	2
C4	Uses extra materials	3	2
C5	Gives importance to speaking	2	2
C6	Teaches extra things as well	1	2
C7	Considers students' interests	1	1
C8	Considers students' needs	1	1
C9	Tolerant	1	1

Table 4.2 Başak's Time 2 Observation

Construct Number	CONSTRUCTS	Başak's rating for self as teacher	Observer's rating
C1	Gets on well with students	1	1
C2	Is prepared before lesson	1	2
C3	Teaches other skills as well	1	2
C4	Uses extra materials	2	2

C5	Gives importance to speaking	1	1
C6	Teaches extra things as well	1	2
C7	Considers students' interests	1	1
C8	Considers students' needs	1	1
C9	Tolerant	1	1
C10	Speaks English fluently	1	1
C11	Uses different methods	1	2
C12	Student centered lessons	1	2
C13	Has good classroom management	1	1
C14	Attracts students' attention	1	1
C15	Never sits on her desk	1	1
C16	Is not stick to schedule	1	1
C17	Friendly	1	1
C18	Innovative in teaching	1	1
C19	Encourages students	1	1

If we look at Başak's observations, we notice that constructs 1 and 9 which did not reveal any structural changes were construed similarly and did not show any change in her observed classes. On the other hand, for her constructs 2, 4 and 5, she has shown behavioural changes. That is, the constructs, *is prepared before lesson*, *uses extra materials* and *gives importance to speaking* were three of her observed constructs that showed behavioural changes between Times 1 and 2. For these constructs, she veered towards the preferred pole and the change was observed as follows: C2 was rated as 2 at Time 1 by both parties (the teacher and the observer), and this changed positively at Time 2 and was rated as 1 by both parties. Construct 4 was rated as 3 by her at Time 2. However, the observer rated this construct as 2 at both Times 1 and 2. Construct 5 was rated as 2 by both parties at Time 1 and rated as 1 by both parties at Time 2.

Is prepared before lesson was seen as an important feature of effective language teaching. While this construct was viewed as 2 by both parties, this construct was rated as 1, which may mean that Başak has given more importance and tried to think more on how to become an effective teacher who is well prepared for her class during the process. She has become a more successful teacher.

On construct 4, Başak has viewed her current self moving from 3 to 2, and the observer's ratings remained the same (2 at both Times). Although, using extra materials was seen as an important feature in effective language teaching, she either was not aware of her potential or she has changed her conception towards the end of the program.

While construct 5 was rated as 2 by both parties, this construct was rated as 1 later. Although Başak's research focus was on "Reading Skills," she believes that speaking is another important component of her research. One of her Time 2 constructs, (C10), supports her belief while focusing on reading, she has not seen speaking as a neglected skill. Instead, she has integrated these two skills and gave equal importance to them during her research process. We may suggest here that Başak has become more aware of this association and felt a need in her attempts to highlight this skill. Her research focus and classroom inquiry process might have enlarged her repertoire. Speaking, as an additional construct, helped her to clarify the perceived need and wish of change.

Ratings of constructs 3, 6, 7, and 9 did not change by both parties. In her observed classes, the observer had the chance of observing only her reading classes (supported by speaking as well). Therefore, the ratings of the

observer were the same (2 at both Times). Başak, after being observed twice, explained that

Extract 11

In my observed classes, I only used reading passages as materials. So, you had no chance of observing my other classes. In my other classes in which I am the coursebook teacher, I use all the skills and teach extra things.

For the constructs 7 and 9, the ratings of both parties did not change (as 1 by both parties at both Times). Although these two constructs were observed and rated as 1, as they are close to the preferred poles, they seem to remain the same. However, change does not necessarily mean doing something differently; it can mean a change in awareness. It may be questioning of "current practice" (Bailey, 1992).

The cognitive process resulted from the teacher's and the observer's interaction with a selection of ideas, materials, feedbacks and discussions with academic article readings might have had a strong influence on Başak's perception and behaviours which enabled her to test out her theories. Her action research project which incorporated an intention to integrate change and development within the process was viable for carrying a meaningful research into innovation (Somekh, 1993). Throughout the program, Başak has shown both conceptual and behavioural changes.

4.2.2 BERNA

She has been teaching English for three years. She graduated from the University of Cukurova, Adana. She is interested in "How can I improve my students' speaking ability and get them to use English more in my classes" ?

4.2.2.1 The Content and Structure of Berna's Personal Theories

Regarding Effective Language Teaching at the Beginning of the Study

Berna's grid data consists of 10 constructs and 11 elements. Berna's FOCUSED grid shown in Figure 4.4 illustrates the construct and element trees drawn at 80% cut off point.

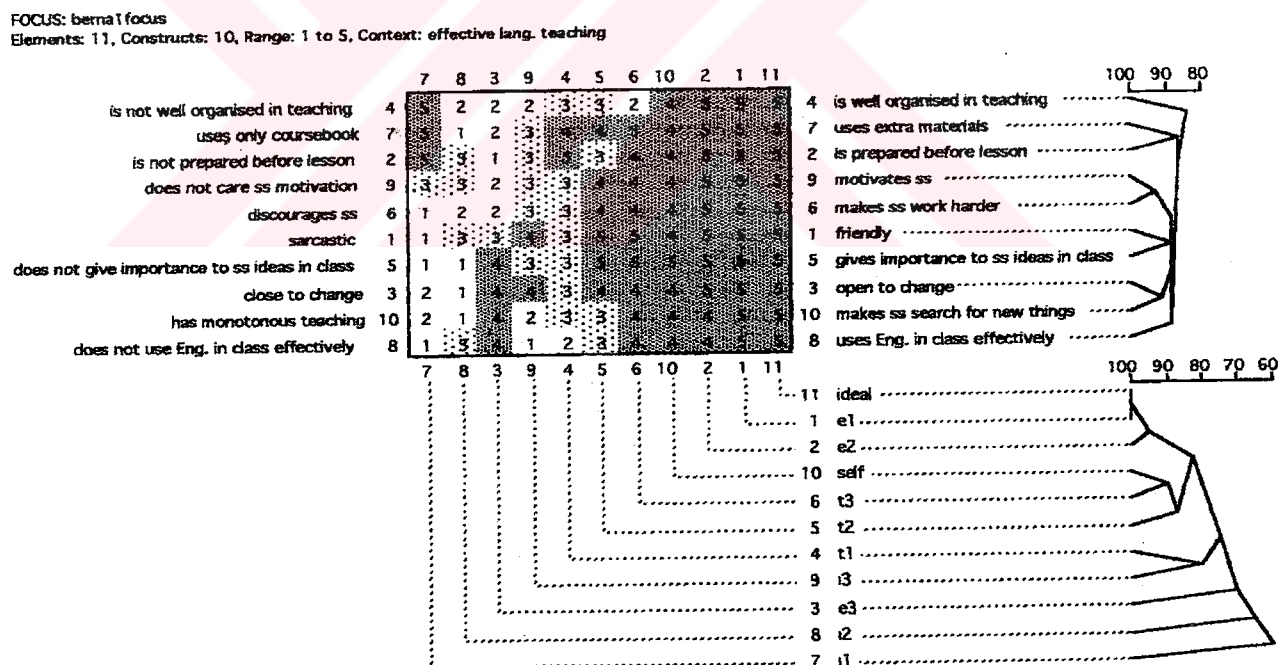


Figure 4.4 Berna's FOCUSED grid at Time 1

- **Construct Links**

The FOCUS analysis of Berna's Time 1 grid produced one main construct cluster consisting of 3 pairs and an isolated construct linked to the rest at a high level (88.6%). Another small cluster consisting of 3 constructs, a pair and an isolated construct are linked to the pair at 84.1% level.

Berna associates one teaching behaviour and one personal quality constructs, *uses extra materials* (C7) and, one of her most important construct, *is prepared before lesson* (C2) at 86.4% match level. That is, Berna seems to think that using extra material in class needs teachers to be well prepared for their classes before the lesson. So, teachers who use extra materials in class prepare themselves and materials before the actual lesson. She associates these two constructs close to each other by putting them in pair.

Towards the middle of the grid, the main cluster consists of 6 constructs, each two of them forming a pair. The construct pair *motivates students* (C9) and *makes students work harder* (C6) have the highest level of link (93.2%) in Berna's Time 1 grid. She appears to construe these teachers who believe that making students work better is a way of motivating students. So, she sees a direct relationship with motivation and directing students for better working. Infact motivation (C9) is one of Berna's top priority constructs.

In the second pair, Berna associates two personal qualities, *friendly* (C1) and *gives importance to students' ideas in class* (C5) at 88.6% match level. Thus, Berna seems to think that teachers who give importance to students' ideas in class behave friendly. In another saying, teachers who are sarcastic do not give importance to students' ideas in class. In this pair, she associates two personal qualities of an effective language teacher highly.

In the last pair, one academic and one personal quality constructs; *open to change* (C3) and *makes students search for new things* (C10) are construed similarly at 90.9% match level. Berna construes two of her top priority construct pair (C3 and C10) in this cluster. To Berna, teachers who are open to change, naturally, make their students search for new things. In this main cluster, Berna places 3 of her 5 most important constructs (3, 9 and 10).

Berna's second most important construct *uses English in class effectively* (C8) has direct links with the constructs in the main cluster (9, 6, 1, 5, 3 and 10) and the pair (7 and 2). This construct is construed highly with *makes students search for new things* (C10) at 88.6% match level.

The construct, *is well organised in teaching* (C4) remains in isolation at Time 1 grid. Berna appears to construe the issue of being well organised in teaching as a construct rather loosely related to the other constructs in her grid. She does not associate this construct closely with effectiveness in language teaching. She does not seem to be ready to associate this construct with her other personal theories.

- **Element Links**

The element links in Berna's FOCUSED grid at Time 1 (see Figure 4.4) do not indicate a clear pattern. Different types of teachers do not form clearly separate clusters. When we look at the position of ideal self as teacher in her Time 1 grid, we see that it is very highly matched (100%) with the one she classifies as the most effective teacher (E1). The second highest match is with that of an effective teacher (E2) at 95% level. Berna's ideal self as teacher seems to be almost identical to teacher E1 and almost identical to teacher E2

with the exception of the constructs *makes students search for new things* (C10) and *uses English in class effectively* (C8).

Current self as teacher is positioned in a cluster comprising typical teachers T3 and T2, having links with them at 90 and 87.5% levels respectively. When we compare the current self and ideal self, we can see that on 9 out of 10 constructs, she is closer to preferred construct poles. Berna seems to think that there is room for improvement in these nine constructs (1, 2, 3, 4, 6, 7, 8, 9 and 10). Although she sees her current self close to the one of her typical teacher (T3) at 90% match level, she believes that her current self is a better teacher than her T3 on being well organised in teaching and her T3 is better than her current self on using extra material and being friendly. Thus, we assume that Berna perceives self as teacher as having the features of typical teachers more than that of her ideal self as a teacher and her best teacher (E1). Therefore, we may state that she is ready for change as she believes she has not achieved the features of her ideal self as teacher yet.

Berna views her T1 and I3 as a loose pair matched at 80% level. One of the effective teachers, E3 is viewed as possessing some features of ineffective teachers and places in isolation like her I1 and I2.

4.2.2.2 The Content and Structure of Berna's Personal Theories Regarding Effective Language Teaching at the End of the Study

- **Construct Links**

Berna's grid data consists of 15 constructs and 11 elements. Her FOCUSed grid shown in Figure 4.5 illustrates the construct and element trees drawn at 80% cut off point.

FOCUS: berna2focus
Elements: 11, Constructs: 15, Range: 1 to 5, Context: effective lang. teaching

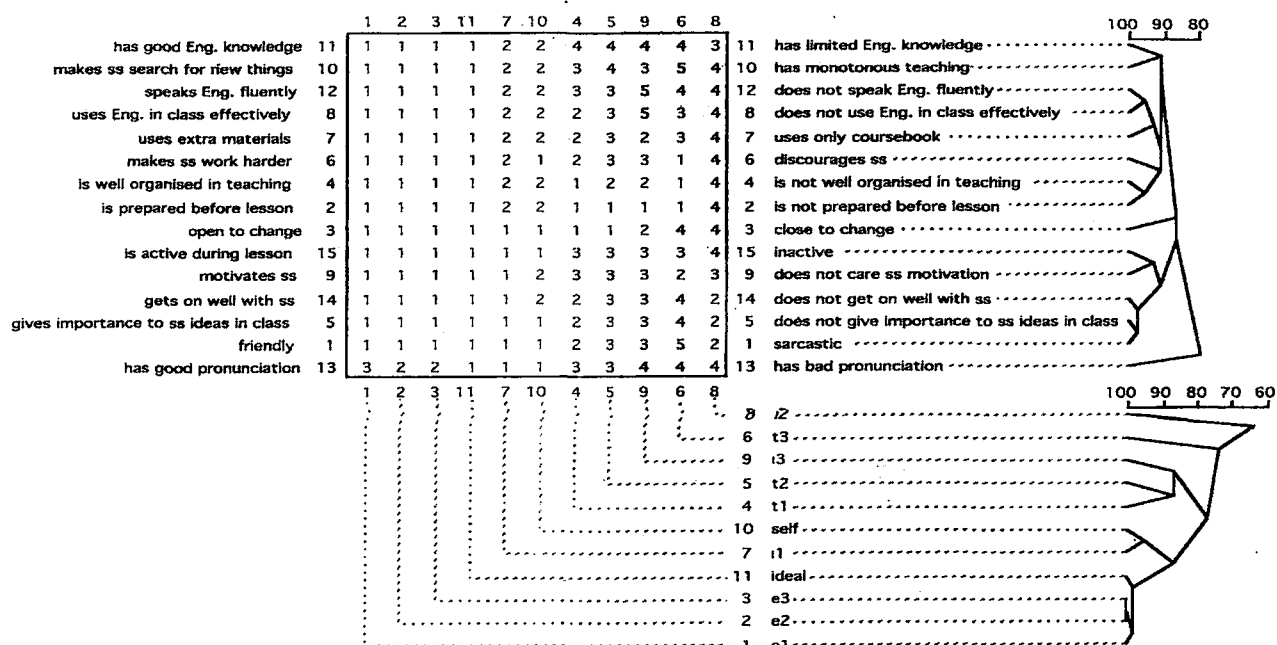


Figure 4.5 Berna's FOCUSED Grid at Time 2

Berna's FOCUSED grid at Time 2 produced 2 tight main clusters, one pair and 2 isolated constructs. The first main cluster consists of two pairs—each having a subordinate construct. There is one other pair directly linked with the constructs in the first main cluster. The second main cluster consists of a tight pair and a subordinated construct with one other rather loose pair.

At the very top of the grid, she associates *has good English knowledge* (C11) and *makes students search for new things* (C10) as a tight pair at 90.9% match level. Her second most important construct (C11) at Time 2 and one of her previously most important constructs at Time 1 (C10) form a pair very closely (at 90.9% level). To Berna only those teachers who have good English knowledge can make their students search for new things. Those teachers who have limited English knowledge teach English monotonously.

In the first main cluster, *speaks English fluently* (C12) and *uses English in class effectively* (C8), which are 2 of her most important constructs related with the teaching behaviours of teachers at Time 2, associate highly at 95.5% match level. At a slightly lower level, *uses extra materials* (C7) subordinates this pair (at 93.2% level). This may mean that, to Berna, effective language teachers can both speak English fluently and use English in class effectively. Such teachers can use extra materials besides coursebooks in class. Berna rationalises her view regarding the importance of speaking and teaching in English in the following extract.

Extract 12

I have always believed that to be able to speak English fluently and to teach English by speaking in class are “musts” for an ideal language teacher. Personally, I try to speak English fluently and speak English in my classes. As a skill, speaking is my priority and that’s why I encourage my students’ speaking English in my class. I love teaching speaking and listening courses.

In the same cluster, *is well organised in teaching* (C4) and *is prepared before lesson* (C2) are perceived to be similar at 95.5% match level. At a slightly lower level (90.9%) the construct, *makes students work harder*, subordinates this pair. To Berna, teachers who are well organised in teaching are those who are well prepared to their classes. Similarly such teachers make their students work harder, and do not discourage students in class.

In the second main cluster, *motivates students* (C9) and *is active during lesson* (C15) are construed similarly at 93.2% match level. Giving a high priority to her construct, *motivates students* (C9), Berna seems to think that

teachers who are active during lesson can motivate students. Berna stated how she perceived constructs 9 and 15, as follows:

Extract 13

For me, passive teachers can not motivate students. For the classroom environment, teachers should be energetic and on the move. That is if teachers are quiet, slow-moving and cold-blooded, then students' motivation can not be high. Only teachers who are active and energetic can motivate students easily.

Her most related constructs are *gives importance to students' ideas in class* (C5) and *friendly* (C1). These two constructs (C5 and C1) are matched very tightly at 97.7% level. And *gets on well with students* (C14) is construed similarly at the same level (97.7%). She associates three personal qualities of teachers in the same sub cluster. This might indicate that she is aware of the personal qualities of teachers and makes a clear grouping among constructs. Of her three most related constructs, one is her third most important construct (C14) in the rank order at Time 2. It relates to the teachers' approach towards students in class. We may assume that teachers who give importance to students' ideas are friendly towards students. Similarly, these teachers can get on well with their students.

One of the academic quality construct, *open to change* (C3) places in the middle of two main clusters. This construct, as an isolate, links all the other constructs in her grid at 86.4%. Thus, open to change seems to be like an umbrella term for construing all her personal theories. She does not associate this directly with any constructs but sees it as a prerequisite for the others. Similarly, she did not necessarily associate construct *has good pronunciation*

(C13) with effectiveness in teaching, but it is construed as a positive academic characteristic that teachers may possess.

- **Element Links**

FOCUS analysis of Berna's Time 2 grid (see Figure 4.5) seem to be chaotic. Similar to her first grid, Berna's element clustering does not indicate a clear pattern at the end of the study. That is, each teacher group (effective, typical and ineffective) does not show separate groups. In the second grid, we see two element clusters, a pair and two isolated elements.

The most closely related (100%) elements are E2 and E3 (her second and third effective teachers). Her most effective teacher (E1) subordinates this element pair at 98.3% match level. Similarly, her ideal self as teacher subordinates this element pair at 98.3% match level. In this cluster, we see that her effective teachers (E1, E2 and E3) and her ideal self as teacher form a clear group and are viewed in a close relationship to each other. When we look at the position of ideal self as teacher (C11) at Time 2 grid, we see that it is highly matched with that of effective teachers. Berna's ideal self as teacher seems to be very similar to her effective teachers (E1, E2 and E3) with the exception of the construct, *has good pronunciation* (C13). For that particular construct, she sees her current self as having a better pronunciation than her effective teachers.

Very closely, she construes her current self with her most ineffective teacher (I1) as an element pair at 95% match level. Current self as teacher is positioned as a close pair with her I1. She construes her most ineffective teacher between her ideal self as teacher and her current self. It is very

surprising to see that I1 is viewed like one of her effective teachers. When we compare the current self and ideal self, Berna seems to think that she perceives her current self close to one of her ineffective teachers (I1) at 95% level. There is room for improvement in 9 out of her 15 constructs (11, 10, 12, 8, 7, 4, 2, 9 and 14).

Changes Observed Between Time 1 and Time 2

- **Content**

The comparison of Berna's two grids yields significant changes in regard to content of the constructs. In contrast to her grid at Time 1, Berna displays a larger repertoire of constructs at Time 2. When we analyse her second FOCUSED grid, we see five additional constructs. These are; *has good English knowledge* (C11), *speaks English fluently* (C12), *has good pronunciation* (C13), *gets on well with students* (C14), and *is active during lesson* (C15). The reason for the addition of three constructs (C11, C12, and C13) might be due to her action research project topic and her classroom inquiry process focusing on "how to improve students' speaking English in my classes." Since Berna focused more on speaking skill during the program and prepared both herself and her classes on her problem, she did readings on how to improve students' speaking and encourage them by using English in class.

Kelly (1955) states that

Whether or not a person will change his or her constructs depends on permeability of constructs, the success or otherwise of predictions entailed by the constructs and the extend of change will depend on the

nature of the inter-relationships between constructs and their position within the person's repertoire" (cited in Pope, 1985, p. 17).

Particular changes in regard to C11, C12 and C13 might be attributed to the process channelised by the ways in which she anticipates events (Kelly, 1955). The other two newly accommodated constructs (C14 and C15) are related to teachers' personal qualities and management skills. The reason for new constructs might be due to feedback she got after she was observed. Dealing with students' speaking problems, encouraging them to speak English in class, and finding some resistance from the students were tiring for Berna, so she stated as follows:

Extract 14

It is tiring for me to direct them to speak English more I know there are many reasons for their not speaking voluntarily. This resistance in their language learning process may lead them to become people who know grammar, understand written texts but are not able to speak. This is my fear and most language teachers' fears. I want to overcome this problem because my students are at the very beginning of their language learning process. Because of this resistance, I have difficulties in controlling my voice and my attitudes towards my students. I am trying new techniques and creating new approaches towards my students. I try to be more friendly and more active in class and use my body language more in order to make them speak English in class.

Thus, she might have construed being active during lesson and getting on well with her students for the purpose of being an effective language teacher.

- Structure

The discussion about the structural changes in Berna's grids at Time 1 and Time 2 will be mentioned in the exchange grid analysis below.

4.2.2.3 The Exchange Analysis of Berna's Time 1 and Time 2 Grids

The exchange analysis of Berna's grids at Time 1 and Time 2 display structural changes that took place both in the constructs and the elements. The overall element consensus is 45.5% and construct consensus is 10% over 80% match level (see Figure 4.6).

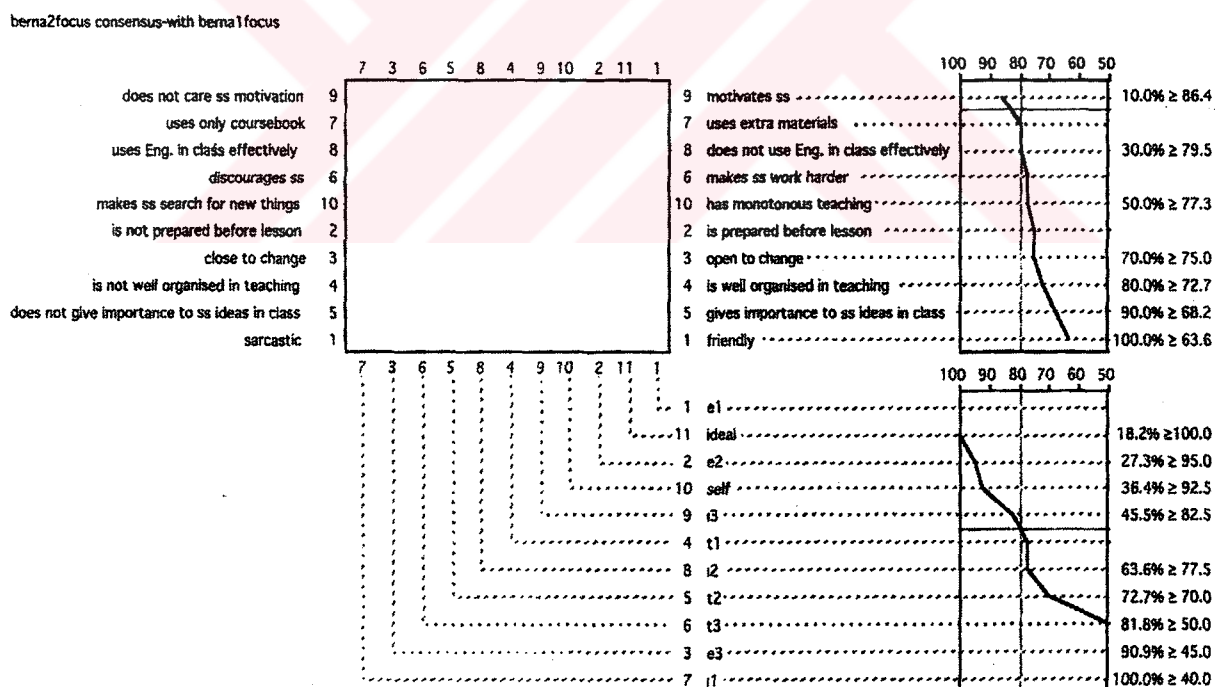


Figure 4.6 The Exchange Analysis of Berna's FOCUSED 1 and FOCUSED 2 grids

- **Construct Changes**

The significant changes at 80% cut off point took place in 9 out of 10 constructs. These changes (from the least to the most) are as follows: (C7; 79.5%), *uses extra materials*, (C8; 79.5%) *uses English in class effectively*, (C6; 77.3%), *makes students work harder*, (C10; 77.3%) *makes students search for new things*, (C2; 75%) *is prepared before lesson*, (C3; 75%) *open to change*, (C4; 72.7%) *is well organised in teaching*, (C5; 68.2%) *gives importance to students ideas in class*, and (C1; 63.6%) *friendly*.

At Time 1, *uses extra materials* (C7) associated with *is prepared before lesson* (C2), one of her top priority constructs at Time 1, at a loose match level (86.4%). At Time 2, this construct (C7) subordinated two of Berna's top priority constructs (pair of C8 and C12); *speaks English fluently* and *uses English in class effectively* very highly at 93.2% match level. We may suggest that at the beginning of the study. Berna held the belief that a teacher who used extra materials was always well prepared for their classes. In fact, Berna mentioned about using the coursebook and extra materials repeatedly during a follow-up interview. The interview account below may be shed more light on how she perceived this issue:

Extract 15

Even in the private schools in Mersin, teachers' preferences on which coursebook should be taught are not taken into consideration. This is the result of either the publishing companies' close relationships with the school or the idea that the previous books should be used for economic reasons. I am not happy with the coursebook. The alternative I put forth here is to use extra materials besides the coursebook (some parts of

which are ignored) and instead I integrate the extra materials into the curriculum for the students' sake. I don't say this is the easiest way. On the contrary, using extra material means extra work, extra preparation, extra energy and time for the teachers.

However, the experiences Berna has gone through served to change her mind. Consequently, at the end of the study, she made new associations and started to believe that a teacher who uses extra materials should teach those materials for the purpose of teaching speaking skill and these extra materials should support students' speaking language. Therefore such a teacher should speak English fluently and use English, not Turkish, in class effectively. In this turn, she adopted her previous construct towards her new aim and focus.

The second construct that showed significant structural change, *uses English in class effectively*, (C8) had links with the rest of her constructs (except 4) loosely at Time 1 grid, as her second most important construct in the rank order. However, at Time 2, this construct became her foremost construct in the rank order and formed a tight pair with one of her most important construct, *speaks English fluently* (C12) at 95.5% match level. On the other hand, *makes students work harder* (C6) formed a tight pair with *motivates students* (C9), one of her top priority construct at Time 1, at 93.2% match level. However, at Time 2, this construct (C4) subordinated *is well organised in teaching* (C4) and *is prepared before lesson* (C2) at 90.9% match level. Berna, seeing a direct association with motivation and making students work harder at the beginning of the study, made new associations with making students work harder and being well organised and being well prepared before lessons. At the end of the

study, she started to believe that in order to make students work harder, teachers should be prepared for their classes and should be well organised.

Another construct that showed structural change is *makes students search for new things* (C10). It was considered as one of her top priority constructs and directly linked with another top priority construct (C3) *open to change* at Time 1. It formed a pair closely with one of her high priority constructs, *has good English knowledge* (C11) at Time 2.

At Time 1, holding the belief of teachers who are open to change can not have monotonous teaching, she leaned towards the belief of teachers who have got good English knowledge can not have monotonous teaching; such teachers encourage students' research.

One of her top priority constructs at Time 1, *is prepared before lesson* (C2) had a loose link with *uses extra materials* (C7) at 86.4% match level. However, this construct (C2) formed a tight pair (at 95.5%) with *is well organised in teaching* (C4) at Time 2. Berna, at the beginning of the study held the belief that teachers who use extra materials, besides coursebooks, are those who are prepared for their classes. Consequently, at the end of the study, she made new associations and started to believe that well prepared teachers are those who are well organised in their teaching.

On the other hand, her foremost important construct at Time 1, *open to change* (C3) associated with *makes students search for new things* (C10) at 90.9% level. However, at the end of the study, this construct (C3) lost its direct link with (C10) and remained in isolation. This may indicate that Berna construed being open to change as her most important construct and as a significant feature of an effective language teacher. However, she can not

associate this feature with the others. With newly formed constructs into her repertoire, Berna seems to think that a teacher who is open to change has all the features she perceives. Therefore, being open to change, seems to be an umbrella construct, placed right in the middle of her Time 2 grid and seems to be related to 2 of her clusters.

Another construct, *is well organised in teaching* (C4) was placed in isolation at Time 1 grid. It constituted a tight pair with *is prepared before lesson* (C2) at 95.5% level and subordinated by *makes students work harder* (C6). At Time 1, Berna had not associated being well organised in teaching with any of the other constructs. However, most probably with the influence of newly arrived construct, this isolated construct formed a sub cluster with her previous constructs (C2 and C6). Berna started to believe that a teacher who is prepared for his/her classes organises her teaching well and this teacher directs her students to study harder.

Gives importance to students' ideas in class (C5) is Berna's other construct that showed a significant structural change. Giving importance to students' ideas in class (C5) and being friendly (C1) constituted a pair at 88.6% level at Time 1. Similarly, and at the highest match level, these two constructs (C1 and C5) constituted a pair at 97.7% level and were subordinated by another construct which is one of Berna's new and top priority constructs, *gets on well with students* (C14). In fact, Berna perceived giving importance to students ideas and being friendly very similar at Time 1, with the help of a newly formed construct, *gets on well with students* (C14). Her repertoire enlarged and formed a sub cluster (at the highest match level at Time 2). Kelly (1955) notes that

Successive revelation of events invites the person to place new constructions upon them whenever something unexpected happens. The constructions one places on events are working hypotheses which are about to be put to the test of experience. (p. 72)

The last construct that showed significant change is *friendly* (C1). It had a loose link with *gives importance to students' ideas in class* (C5) at Time 1. However, at Time 2, she associated these two constructs (C5 and C1) very closely, at the highest rate at Time 2 grid (mentioned in the previous paragraph).

The exchange analysis of Berna's Times 1 and 2 grids reveals that she seemed to have gone through a process of reorganisation of all the constructs (except construct 9). Therefore we observe major and noteworthy changes between Times 1 and 2 grids of Berna. Now, we assume that as a result of her new experience of project writing, classroom inquiry process, observed classes and her readings on her problem seemed to have been a valuable opportunity to test and to validate her personal theories which eventually may have led to the refinement and reconstruction of these theories.

- **Element Changes**

Figure 4.6 also revealed that Berna had been in the process of reorganising six of her elements in her grids. These elements with structural changes included the following in the order of level of difference from the least to the most: T1 (77.5%), I2 (77.5%), T2 (70%), T3 (50%), E3 (45%) and I1 (40%). Taking Berna's element clustering as a base, we may assume that her main concern seems to be on the distinguishing the features of each teacher group in light of her new experiences.

T1 was viewed as similar to I3. However, it forms a pair with T2 at Time 2 and I3 subordinates the pair as a loosely linked element. While E3, I2 and I1 were isolated elements, E3 forms a tight link with E2 (at 100% match level) and E1 subordinated this pair very highly at 98.3% level. E3, viewed as an isolated element and had a place among her ineffective teachers at Time 1, is viewed in its actual group with her effective and ideal self as teachers at Time 2.

I2 and T3 remain in isolation at Time 2. But the other Time 1 isolated element, I1 is placed between her current self and ideal self as teacher, and is viewed as similar to her current self at 95% match level. We may assume that Berna either misplaced her I1 (the most ineffective teacher), or her I1 became one of her model teachers. Taking into account the associations she made, we may suggest that throughout the program Berna had had experiences that led her to reorganise her perceptions. However, regarding her elements, we still do not see a clear cut pattern for the categories and level of similarity of her typical and ineffective teachers which indicates that she needs some more time and experience to build a clearer pattern in her mind. As in this case, Kelly (1955) sees conceptual development as an "evolutionary process" which involves the progressive differentiation of conceptual structures into independently organised substructures and the hierarchic integration of these substructures at progressively higher levels of abstraction. Pope (1985, p. 18) states that "the functional differentiation of structures enhances the 'range of convenience' of an individual's construct system." She (1985) comments on this notion from Kelly's "range of convenience" corollary, and states that

Certain features or events can be ruled out of consideration by a construct on the basis that, for them it is an inappropriate or inadequate

way of being viewed. The system is neutral towards them –they lie outside its range of convenience. (p. 18)

- **Isolates**

In Berna's Time 1 grid, construct 4 was in isolated position, loosely clustered with the rest of the constructs. At Time 2, construct 4 joins the largest cluster and forms a tight construct pair at 95.5% match level with construct 2 (and subordinated by construct 6). This reorganisation of construct associations may be due to an attempt to integrate the 5 new constructs introduced to the existing belief system.

The other isolate, C8 was her second top priority construct at Time 1 and had remained in isolation having links with the other constructs at the same level. However, at Time 2, this construct became her first most important construct and formed a tight pair with one of Time 2 constructs; speaking English fluently. This new pair involved one of the academic qualities and one of the presentation skills of effective teachers.

- **New Constructs**

At Time 2, Berna introduced 5 new constructs (11, 12, 13, 14 and 15) and so had to integrate them into her existing belief system. The integration of new constructs is construed as follows:

Construct 11, one of her most important constructs formed a tight pair with one of her Time 1 most important constructs, (C10). Construct 12 formed a tight pair with another top priority construct, 8 at Time 2. This construct was placed in the largest cluster and blended with only Time 1 constructs (8, 7, 6, 4

and 2). Construct 13 remained in isolation, establishing no association between having good pronunciation and the other features of effective language teaching. Construct 14 became one of her most important construct at Time 2 and was rather tightly linked construct, subordinating the tight pair of construct 1 and 5 at 97.7% match level. In the same cluster, construct 15 constituted a pair with 9 which is one of her top priority constructs at both Time 1 and Time 2.

- **High Priority Constructs**

Constructs 8 and 9 have consistently been Berna's high priority constructs between Time 1 and Time 2. Construct 8 had direct links with the rest of the constructs (except 4). It was loosely linked with using extra materials and being prepared before lesson. At Time 2, this construct forms a tight pair with one of Time 2 top priority constructs (C12) at 95.5% match level. Two of Berna's top priority constructs and two of the constructs that represent the problem of Berna's action research project formed a tight pair, placing in a large cluster.

Construct 9, on the other hand, formed a pair with 6 at Time 1. Leaving a larger cluster, it forms a tight pair with construct 15 and is placed in a different cluster. At Time 2, both constructs (8 and 9) were placed in different clusters.

4.2.2.4 Berna's Behavioural Change Between Time 1 and Time 2

Berna's 9 constructs out of 10 showed significant structural changes in her exchange analysis.

Table 4.3 Berna's Time 1 Observation

Construct Number	CONSTRUCT	Berna's rating for self as teacher	Observer's rating
C1	Friendly	2	2
C2	Is prepared before lesson	2	2
C3	Open to change	2	Not Observed
C4	Is well organised in teaching	2	3
C5	Gives importance to ss ideas in class	1	2
C6	Makes ss work harder	2	2
C7	Uses extra materials	2	1
C8	Uses English in class effectively	2	1
C9	Motivates ss	2	1
C10	Makes ss search for new things	2	2

Table 4.4 Berna's Time 2 Observation

Construct Number	CONSTRUCT	Berna's rating for self as teacher	Observer's rating
C1	Friendly	1	2
C2	Is prepared before lesson	2	1
C3	Open to change	1	Not observed
C4	Is well organised in teaching	2	1
C5	Gives importance to ss ideas in class	1	1
C6	Makes ss work harder	1	1
C7	Uses extra materials	2	1
C8	Uses English in class effectively	2	1
C9	Motivates ss	2	1
C10	Makes ss search for new things	2	1
C11	Has good English knowledge	2	1
C12	Speaks English fluently	2	1
C13	Has good pronunciation	1	1
C14	Gets on well with ss	2	2
C15	Is active during lesson	1	1

In her both grids, as she stated, being friendly (C1) is an important feature of an effective language teacher. Observations on this construct display that Berna's

perceiving herself changed positively (from 2 to 1). However, the observer's observation rating remained the same (from Time 1 to Time 2). The observer rated this construct as 2 at both Times. Berna's perceiving this construct was asked at Time 1 grid and the statement was as follows:

Extract 16

One of the characteristics of a good language teacher involves creating a good classroom atmosphere. If the class atmosphere is not flexible but sticking to the rules of grammar, then students get bored. So in order to increase students attention, teachers should create a flexible atmosphere. One way of doing this is to be friendly, but not sarcastically. I personally teach 7th grade students; this makes me think about how to strike a balance with students. Being friendly can be easily misunderstood by students. I have doubts and am unclear on how to be friendly.

This was noticeable in her classes. Students' misunderstanding of the teacher's approach or becoming spoiled made the teacher hesitant on how to approach them. The classroom atmosphere was not very relaxed and flexible, instead, the teacher forced herself to keep some distance with students by becoming a stricter teacher.

After the first observation, Berna was given feedback, particularly on her constructs (C2, C4, C5, C6 and C10) because of the observer's ratings on them. We see that Berna has shown changes on these constructs and has reached the preferred pole at the end of the study.

If we look at the constructs at Time 2, the weaker ratings she got were (C1) and (C14) which are related to attitude of teachers towards students.

During the feedback sessions, and when she was asked what she thinks on these constructs at the end of the study, she stated that

Extract 17

Yes, this is my weakness. Because I have not got enough patience and tolerance. I don't like spoiled children and I hate being 'used' by them. When I notice this I can not control myself. Then I behave negatively and threaten badly. I know this is not right but I can't control myself. I want to, but how?

On the other hand C7, C8 and C9 were rated as 2 by Berna and rated as 1 by the observer. Having good English knowledge and speaking English fluently, naturally makes the lesson more interesting. What she came to understand from using extra materials was that

Extract 18

It is not leaving students with grammatical rules on their worksheets, it is not giving them worksheets and let them finish. What it means to me is to bring extra from encyclopedia, articles, magazines or bringing pictures, using visual aids or talking about different subjects besides that of the coursebook. Because, if you always use coursebook, students' motivation can easily be lost.

Using English in class effectively for Berna means to enter the classroom and start speaking till the end of the lesson without using one word of Turkish. She was successful on this and her students were getting used to it.

The observation of the constructs that she added at Time 1 (C11, 12, 13, 14 and 15) also yields an important point. These constructs (C11, 12, 13) were

either related to her project concern or her weakness, she seems to be in need of time to apply what she believes to what she actually does.

Drawing from the above observations, we may say that she has gone through both conceptual and behavioural changes. Berna's observation and exchange analysis indicate that there is a consistency between her conceptual and behavioural changes.



4.2.3 EBRU

She has been teaching English for two years. She graduated from the University of Uludağ, Bursa. Her interest is “How can I make my students active learners with the help of appropriate methods, and teach better in my state school” ?

4.2.3.1 The Content and Structure of Ebru’s Personal Theories Regarding Effective Language Teaching at the Beginning of the Study

- **Construct Links**

Ebru’s first grid comprises of 12 constructs and 11 elements. Figure 4.7 illustrates the construct and element trees drawn at 80% cut off point. FOCUS analysis of Ebru’s first grid produced one big main cluster made up of 7 constructs, involving two sub clusters containing 3 constructs and 1 other construct linked very closely to the second sub cluster, with 2 other isolated constructs and one pair linked to an isolated construct at 63.6% level.

FOCUS: ebru1focus
Elements: 11, Constructs: 12, Range: 1 to 5, Context: effective lang. teaching

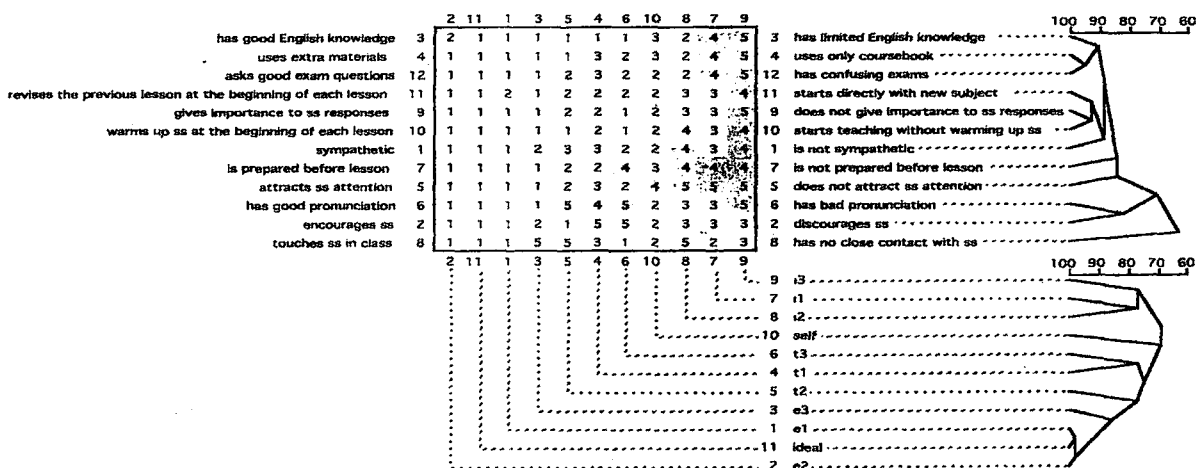


Figure 4.7 Ebru’s FOCUSED Grid at Time 1

If we look at the big cluster towards the top of the grid, there are two sub clusters made up of 3 constructs. In the first sub cluster, Ebru involves both the teaching behaviours (C4 and C12) and academic quality (C3) of effective teachers in the same cluster. However, in the second cluster, she associates 3 constructs (C9, C10 and C11), two of which represent the personal qualities and one teaching behaviour of effective teachers.

At the top of the grid, *uses extra materials* (C4) and *asks good exam questions* (C12) are linked at 95.5% match level. At a slightly lower level (90.9%), the construct *has good English knowledge* (C3) is also construed similarly with this pair. To Ebru, using extra materials and asking good exam questions are the characteristics of teachers who have got good English knowledge.

In the second sub cluster, *warms up students at the beginning of each lesson* (C10) and *gives importance to students' responses* (C9) have a close link at 93.2% match level. Ebru construes the construct 10 as her second most important construct in the rank order. And one of her top priority constructs in the rank order, *revises the previous lesson at the beginning of each lesson* (C11) subordinates this pair, forming a very tight sub cluster at 93.2 % match level. Giving higher priorities to 2 of her most important constructs (C10 and C12) in this sub cluster, Ebru seems to construe that an effective language teacher is someone who gives importance to revision of previous lesson, thus, this teacher warms up students at the beginning of each lesson and respects her students' responses. In this sub cluster, although Ebru sees *sympathetic* (C1) as one of the characteristics of an effective language teacher, she can not associate this with any of her other constructs highly. This construct (C1)

remains as a subordinated construct, more closely to her second sub cluster, towards the middle of her grid, at 88.6% match level.

In the pair at the bottom of the grid, constructs *has good pronunciation* (C6) and *encourages students* (C2) associate at 81.8% match level. She believes that teachers who have got good pronunciation can encourage students easily. This pair is also linked with two isolated constructs (C5 and C7) at a higher level, 70.5% match level and with one other isolated construct (C8), at a lower level, at 63.6% level.

Constructs, *is prepared before lesson* (C7) and *attracts students' attention* (C5) are construed similarly at a level of 84.1%. Although they (the isolated constructs) are not tightly clustered with any of the clusters or pairs, they seem more related to the big cluster (at 84.1% match level). As a matter of fact these two constructs (C5 and C 7) are two of Ebru's top priority constructs in the rank order. But we may assume that she is not ready to see a closer relationship with these constructs and the rest of her constructs yet.

Touches students in class (C8) is another isolated construct in Ebru's first grid. She sees touching students in class as a construct rather loosely related to the other constructs in her grid and does not highly associate with the features of effective language teachers.

- **Element Links**

In the element set, we see two main element clusters; a pair and 3 isolated elements. The element clusterings in Ebru's grid does not indicate a clear pattern; each teacher group seems to form a separate group but not in

order (from the most to the least). However, the level of similarity between the effective teachers is higher than that of typical and ineffective teachers.

In the first cluster, I1 and I2 are viewed as similar at 77.1% match level. I3 subordinates the pair at the same level. Thus, we may suggest that Ebru has constituted a clear understanding on the features of ineffective teachers.

She sees herself as a teacher between her ineffective and typical teachers. She can not associate T2 and E3 (at 77.1% match level to each other) with any of other elements. E3 is closer to her E1, E2 and ideal self as teacher at 85.4% level.

Towards the middle of Ebru's grid E1 and ideal self as a teacher are the most closely related (at 97.9% match level) elements. E2 subordinates the element pair as a tight match level (at 97.9%). When we look at the position of ideal self as teacher in the grid, we see that it is highly matched (97.9%) with the element she classified as the most effective teacher (E1). Ebru's ideal self as teacher seems to be almost identical to her E1 with an exception of the construct *revises the previous lesson at the beginning of each lesson/starts directly with the new subject* (C10), which is her third most important construct in the rank order at Time 1.

Current self as teacher is not positioned in a cluster. Moreover, from the organisation of her elements point of view, we may speculate that Ebru deems herself as somewhere between ineffective and typical teachers. We may further suggest that she either lacks self confidence because of not having enough teaching experience or she feels the need to improve more professionally to become an effective language teacher since she has been working in a state school for only two years.

4.2.3.2 The Content and Structure of Ebru's Personal Theories Regarding Effective Language Teaching at the End of the Study

• Construct Links

Ebru's second grid data consists of 20 constructs and 11 elements.

Figure 4.8 illustrates the construct and element trees drawn at 80% cut off point at the end of the study.

FOCUS: ebru2focus
Elements: 11, Constructs: 20, Range: 1 to 5, Context: effective lang. teaching

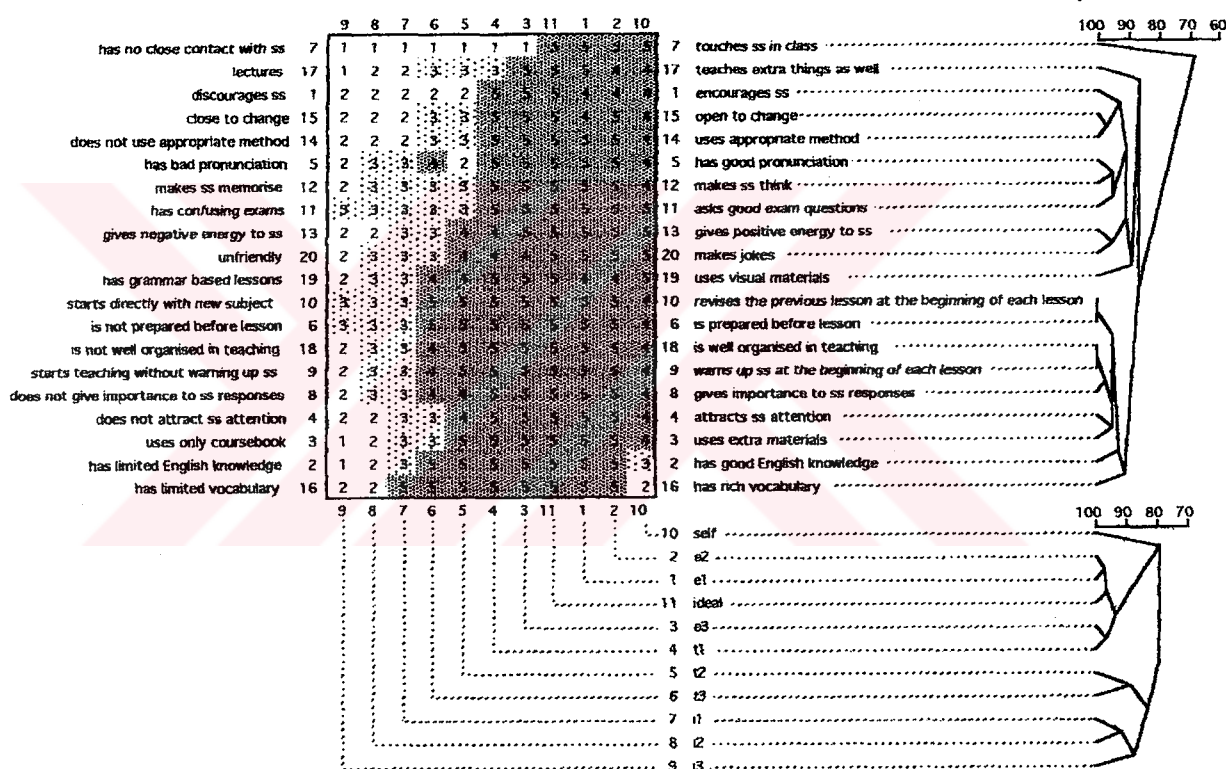


Figure 4.8 Ebru's FOCUSed Grid at Time 2

FOCUS analysis of Ebru's end of study grid produced one big cluster, consists of two main clusters with one rather loose isolated construct which is close to both first and second main clusters at the same level (at 68.2% match level). The first main cluster consists of 2 sub clusters; containing 3 constructs

each, and a pair with an isolated construct close to the pair and the cluster at the same level. The other cluster is rather tight and consists of 2 tight pairs and one other tight sub cluster with three constructs. In this cluster, we see two rather isolated constructs; one of which is close to the tight pairs and the other one is close to the first and second clusters as a rather loose construct. If we look at the big cluster, we see the first main construct cluster, consisting of 9 constructs with one isolated construct and the second main construct cluster, containing 9 constructs, all are linked to each other at 86.4% match level.

The first construct cluster involves two sub clusters—each containing 3 constructs and the third one containing a pair and an isolated one. In this first cluster, she involves constructs related with the teaching behaviours, personal qualities and academic qualities. They are all in a close relationship with each other but not as much as the constructs in the second cluster. In the second cluster, she associates constructs from three categories. She neatly joins them all except the two isolates (C16 and C2), both representing academic qualities of a teacher.

In the first cluster, we see that *open to change* (C15) and *uses appropriate method* (C14) are highly linked to each other, forming a tight pair at 97.7% match level. Ebru construes *uses appropriate method* (C14) as her third most important construct in the rank order and sees a tight match with *open to change* (C15). To Ebru, teachers who are open to change use appropriate methods. And she sees a close relationship with *encourages students* (C1) and this pair at 93.2% match level.

In the same cluster, the construct pair, *makes students think* (C12) and *has good pronunciation* (C5) have a close link at 95.5% match level. The

construct, *asks good exam questions* (C11) subordinates the pair at the same level. Thus, we may assume that for Ebru, teachers who encourage students' thinking instead of pushing them into memorisation, are construed as those who have got good pronunciation. These teachers are considered as those who are good at examining their students' knowledge.

In the first cluster, towards the middle of the grid, we see *makes jokes* (C20) and *gives positive energy to students* (C13) form a pair at 95.5% match level. The construct, *uses visual materials* (C19) subordinates this pair at 88.6% match level. Ebru, construing giving positive energy (C13) as one of her top priority constructs in the rank order, may see that teachers who make jokes in class and those who use visual materials in class give positive energy to their students.

If we look at the very top of the grid, we see that *teaches extra things as well* (C17) remains as an isolated construct. Ebru can not associate this feature with any of the other features that embody an effective language teacher but sees closely related to the constructs in the first cluster. This particular construct links all the other constructs in her grid at 86.4% match level.

In her second main construct cluster towards the bottom of the grid, the construct pair, *is prepared before lesson* (C6) and *revises the previous lesson at the beginning of each lesson* (C10) are very highly linked to each other at 100% match level. In fact, *is prepared before lesson* (C6) is her foremost construct in the rank order. So, we may assume that she construes these two constructs as a teacher who revises the previous lesson at the beginning of each lesson is always well prepared for his/her classes. In the same cluster towards the bottom of the grid, Ebru associates *is well organised in teaching*

(C18) and *warms up students at the beginning of each lesson* (C9) very highly (at 100% match level) with effectiveness in language teaching. She also finds a very close relationship with *gives importance to students' responses* (C8) and this pair (C9 and C18) at 97.7 % match level. To Ebru, a teacher who is well organised warms up her students at the beginning of the lessons and pays attention to students' responses. In the same cluster, two constructs representing the teaching behaviours of teachers, *uses extra materials* (C3) and *attracts students' attention* (C4) form a tight pair at 95.5% match level. Ebru construes *uses extra materials* (C3) as her second most important construct in the rank order. To Ebru, using extra materials in class, besides the coursebook, is a characteristic of teachers who want to gain their students' attention. In other words, teachers who believe that attracting students' attention is an important feature of effective language teachers are those who also use different materials in order to grab students' attention. In this cluster, what is noteworthy is that she associates not only teaching behaviours of effective teachers, but all categories which means that she has not realised the distinction among the broad categories and accommodated those constructs in a cluster more tightly.

In the same cluster, we see two isolated constructs, *has good English knowledge* (C2) and *has rich vocabulary* (C16). Although *has good English knowledge* (C2) remains as isolate and is not as tight as others, it is one of her top priority constructs in the rank order and highly linked to the remaining constructs in the cluster at 93.2% match level. We may suggest that the reason for these two isolated constructs (C2 and C16) is that this teacher does not

seem to have associated these constructs closely with the features of effective language teaching so far.

On the other hand, construct *touches students in class* (C7) is loosely linked to all her constructs at 68.2% match level. This might mean that Ebru does not seem to see a close relationship with *touches students in class* (C7) and the rest of her constructs yet. She might see it in general terms for effective language teaching. So, she gives more importance to teachers' personal attitudes rather than teachers' teaching behaviours or academic qualities.

- **Element Links**

The element clusterings in Ebru's grid at the end of the study does not indicate a clear pattern. But each teacher group (i.e., effective, typical, and ineffective) seems to form a separate group. However, the level of similarity between the effective teachers is higher than that of her most typical and ineffective teachers as in her Time 1 grid.

In the element set, we see one main cluster, containing one element cluster made up of two pairs—one is subordinated by another element—a pair, and one other being pair with one subordinated element and a rather isolated element.

The first element cluster, her larger cluster, forms a clear cut distinction among her elements. This cluster contains both her effective teachers (E1, E2, and E3) and ideal self with her most typical teacher (T1). Three effective teachers and typical teacher with ideal self as a teacher form a tight element cluster at 93.8% match level. Among them, her E1, E2, and ideal self as

teacher are viewed closer to each other. E1 and E2 are seen as a pair at 97.5% level. Ideal self as teacher subordinates the pair at 96.2 %match level. In the same cluster, E3 and T1 are viewed as similar at 95% match level.

At Time 2, Ebru construes T2 very similar to her T3, forming a pair, at 88.8% match level. Moreover, from her ineffective teachers, forming a separate group (from the highest to the lowest effective teachers), her I1 and I2 forms an element pair at 91.2% match level and I3 subordinates these elements at 87.5% match level.

Ebru seems to construe herself as somewhat isolated from the rest of the elements in the grid but is leaning towards the effective teacher group. She seems to think that she holds some qualities of her effective teachers and ideal self as teacher. But still, she is aware of a need that she is in the process of development in order to be closer to her ideal self as teacher. At Time 2, the self as a teacher was deliniated as *uses visual materials, makes jokes, gives positive energy to students, asks good exam questions, touches students in class*. On the other side, Ebru was undecided about herself on 15 of her 20 construct dimensions. The undecided construct dimensions generally seem to concentrate on academic qualities and teaching behaviours rather than personality characteristics.

Comparing her Time 1 and Time 2 grids, we may see that in her first grid, her E1 was associated with ideal self as teacher at the highest match level (97.9%). And her E2 was a subordinated element at the same level (at 97.9%). However at Time 2, she associated E1 and E2 very highly (at 97.9%) and her ideal self remained as subordinate element to her E1 and E2 (at 96.2% match level).

NOTE

At Time 2, during the elicitation of constructs, Ebru was asked to rerate the constructs elicited at Time 1. And also, she was freed to decide whether to delete any of the constructs elicited at Time 1 or to add new construct/s. At Time 2, she expressed that she did not want to rate one of her Time 1 constructs which is *sympathetic* (C1) and added 9 new constructs into her repertoire. After deleting her construct, (C1) at Time 2, the construct numbers changed and C2 became C1, C3 became C2, C4 became C3 (and so on ...) at Time 2.

Changes Observed Between Time 1 and 2

- **Content**

Changes in the content of Ebru's two grids were noteworthy. She has incorporated 9 additional constructs in her repertoire between Times 1 and 2. These are: *makes students think* (C12), *gives positive energy to students* (C13), *uses appropriate method* (C14), *open to change* (C15), *has rich vocabulary* (C16), *teaches extra things as well* (C17), *is well organised in teaching* (C18), *uses visual materials* (C19), and *makes jokes* (C20).

Another matter of interest is the fact that Ebru has cited 2 of her new constructs as her most important constructs in the rank order at Time 2 and her other most important construct, *is prepared before lesson*, remained as her foremost construct at Time 2 as well. This construct was her foremost construct at both grids. It appears that, for Ebru, the sessions in the teacher development program with project writing seem to function as a trigger for change in terms of raising awareness of some issues in effective language teaching.

- **Structure**

The structural changes reported were based on exchange analysis of 2 grids obtained from Ebru at Times 1 and 2 at 80% cut off point (see Figure 4.9). Ebru's 5 out of 12 constructs showed patterns of noteworthy structural change between Time 1 and 2 at 80% cut off point as discussed above. There has been structural changes in Ebru's elements. 5 out of the 11 elements showed patterns of noteworthy structural changes between Times 1 and 2 at 80% cut off point (see 4.2.3.3 Construct changes and Element changes below).

4.2.3.3 The Exchange Analysis of Ebru's Time 1 and Time 2 Grids

The exchange analysis of Ebru's grids at Time 1 and 2 study reveals that the construct consensus was 54.5%, and element concensus was 54.5 % over 80% cut off point (see Figure 4.9).

- **Construct Changes**

Ebru's constructs which showed structural change at 80% cut off point occurred in *attracts students' attention* (C4; 79.5%), *is prepared before lesson* (C6; 79.5%), *asks good exam questions* (C11; 79.5%), *touches students in class* (C7; 72.7%), and *encourages students* (C1; 68.2%). This suggests that she seemed to have gone through a process of reorganisation for nearly half of the constructs in her initial grid (5 out of the 11 constructs).

Ebru's 11 constructs showed patterns of noteworthy structural change between Times 1 and 2 (see Figure 4.9) at 80% cut off point. The constructs with structural change include in order of level of difference from the highest to

the lowest changes: *attracts students' attention* (C4), *is prepared before lesson* (C6), *asks good exam questions* (C11), *touches students in class* (C7), and *encourages students* (C1).

ebru2focus consensus-with ebru1focus

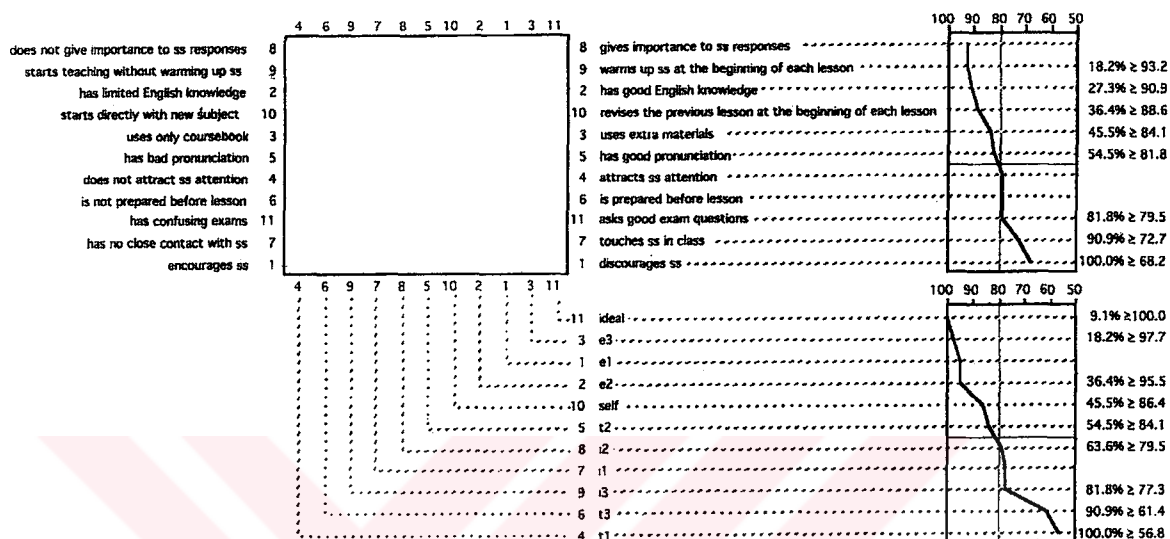


Figure 4.9 The Exchange Analysis of Ebru's FOCUSED 1 and FOCUSED 2

Grids

At the beginning of the study, *attracts students' attention* (C5) which was one of her most important constructs in the rank order, was an isolated construct, not belonging to any cluster or pair. It seemed more related to the second construct cluster (see Figure 4.7) while at the end of the study, this construct (C4) constituted a tight pair (95.5% match level) with *uses extra materials* (C3) (see Figure 4.8). And this construct existed in the larger cluster at Time 2. Thus, we may suggest that at the beginning of the study, for Ebru, attracting students' attention was not associated with the other features of effective language teachers. It now seems to be related to a large cluster of

constructs including using extra materials, having good knowledge of English and vocabulary, giving importance to students' responses, revising the previous lesson and warming up students at the beginning of lessons, being well prepared and well organised in teaching. At Time 2, she seems to construe attracting students' attention as a basis for teaching better, in terms of teachers' knowledge, materials she used and teachers' way of teaching organisation. In other words, between Times 1 and 2, Ebru has somewhat clarified her views of effectiveness in language teaching.

Similarly, *is prepared before lesson* (C6), which was her foremost construct in the rank order both at Times 1 and 2, was an isolated construct at the beginning of the study (see Figure 4.7) while at the end of the study, this construct (C6) was placed in a cluster and constituted a tight pair with *revises the previous lesson at the beginning of each lesson* (C10) at 100% match level. At Time 2, she started seeing an equal link between being prepared before the lesson and revising the previous lesson at the beginning of each lesson. Placing this construct in the cluster, she now seems to construe being prepared before the lesson as one of the most important features of an effective language teacher's characteristics--closely related to her constructs concerning the teachers' personal qualities and presentation skills.

Similarly, *touches students in class* (C8) at the beginning of the study, was an isolate, rather loosely related to the other constructs, while at the end of the study, this construct has not shown a direct or close relationship with the other constructs. It remained in an isolated position, remaining as an important feature of effective language teaching closely related with the rest of the

constructs. Ebru appears to construe the issue *touches students in class* as a construct rather loosely related to the other constructs in her grid.

The last construct that showed a significant structural change, *encourages students* (C1) associated with *has good pronunciation* (C6) at 81.8% match level at Time 1 (see Figure 4.7). However, at the end of the study, we see this construct as a subordinate to the constructs 14 and 15 at 93.2% match level. As an example, while *encourages students* (C1) in the exchange grid had a close match (81.8%) with the construct *has good pronunciation* (C6) in her Time 1 grid, its highest link (93.2%) was with a pair of 2 constructs (14 and 15). These are her new constructs and construct 14 is one of the most important constructs in the rank order at Time 2. Therefore, the construct encouraging students was construed more similarly with being open to change, and using appropriate methods. By placing this construct in the larger cluster, the pattern of changes in constructs, except construct 7, suggests an increasing concern with teaching better and more involvement with the concept of effective language teaching.

Moreover, *asks good exam questions* (C11) formed a tight pair with *uses extra materials* at 95.5% match level at Time 1. However, at Time 2, *asks good exam questions* subordinated the constructs *has good pronunciation* (C5) and *makes students think* (C12) at 95.5% match level. Placing *asks good exam questions* in a small construct sub cluster and seeing a close relationship with teachers' knowledge and using extra materials, Ebru enlarged her repertoire at Time 2 and put this construct (C11) into a larger cluster. Her new constructs at Time 2 may have affected her conception of exam preparation. Because, we see that at Time 2, she associated this construct mostly with the new constructs

(20, 19, 17, 15, 14, 13, and 12). We may assume that with the integration of new constructs into her repertoire at Time 2, Ebru has changed her conception of preparing exam questions. Those newly conceived constructs helped her reorganise her beliefs and thoughts.

- **Element Changes**

The elements that showed significant structural change are I2;79.5%, I1;77.3%, I3;77.3%, T3;61.4%, and T1;59.1%. Although these elements did not show a clear cut pattern in the Time 1 grid, they were clearly grouped together in three (effective, typical, ineffective) categories. However, these elements seem to form a better grouping in three categories at Time 2. Typical and ineffective teachers seem to be grouped in order (from the highest to the lowest effective teachers).

At the beginning of the study, I1 and I2 formed a pair at a loose match (77.1%). Similarly, I3 subordinated these elements at the same level. However, at the end of the study, I1 and I2 have constituted a tight pair and are viewed closer to each other (at 91.2% match level). I3 subordinated this pair much closer (at 87.5% match level). Comparing her ineffective teachers between Times 1 and 2, at the beginning of the study, her ineffective teachers showed a clear grouping but rather loosely matched level, all linked to each other at 77.1% match level. Whereas, at the end of the study, all these teachers showed a clear grouping again with rather closely match level (at 87.5%). Ebru seems to have established a clearer picture in her mind regarding her ineffective teachers.

In her Time 1 grid, her T3 is viewed as similar to T1 at 77.1% match level. However, at Time 2, this element (T3) is viewed similar to her T2 at 88.8% match level. T1, on the other hand, is viewed as similar to T3 at Time 1 as a loose match, while at Time 2, T1 is viewed as similar to her E3. She finds a tight relationship with T1 and E3 at 95% match level. We may see that while Ebru was not seeing close relationships among her typical teachers at Time 1, she started to see much closer relationships among her typical teachers at Time 2. She might have begun to distinguish the characteristics of typical teachers from that of effective teachers. As an example of this, notably, her E3 was an isolated element at the beginning of the study, this element was placed with T1 (her most typical teacher) and moved to a larger element cluster.

Her elements from the most to the least effective can not be seen within this cluster but in her pair, E3 and T1 (from the most to the least effective). Ebru seems to have clearer ideas on these elements.

Ideal self as teacher is clustered with the effective teacher group in both grids, sharing the highest link with her E1 and E2 (two of her most effective teachers) at 97.9% match. Therefore, E1 and E2 seems to be the model teachers like whom she eventually would like to be on most of her constructs.

When we compare Ebru's ratings for self as a teacher in her two grids, we see that she sees herself between her ineffective and typical teachers. However, at the end of the study, she sees herself as holding the characteristics of her ideal self and her effective teachers. So, we may suggest that she, now leaving behind the ineffective and typical teachers, categorised herself more among the effective teachers. She has not closely paired with any of them but

has become closer to them on most of her constructs. She is in the process of change.

Regarding the organisation of Time 1 and 2 elements in her grids, we may suggest that Ebru construes much closer relationships and closer level of similarity among her teachers. Each teacher group forms a separate cluster, which may suggest that her classification of the elements on her constructs has become more consistent and orderly. Another important point is that Ebru went through a process of reorganisation for nearly half of her elements.

- **Isolates**

In Ebru's Time 1 grid, construct 7, which was her most important construct in the rank order, was in an isolated position, the least loosely clustered construct with the rest of the constructs. At Time 2, construct 7 joined the tight construct pair of 10 and 6 (at 100% match level) to form a part of cluster.

Similarly, construct 5 at Time 1, was an isolate, joined the same cluster and formed a pair with construct 3, which was Ebru's second most important construct in the rank order at Time 2.

Interestingly, constructs 7 and 5 at Time 1, which were 2 of her high priority constructs split the cluster at Time1 and were placed as isolated constructs between two clusters. However, at Time 2, both constructs (C6 and C4) were placed in the same cluster. Construct 6 was associated very highly with one of her Time 1 constructs (C10).

Similarly, C4 formed a tight pair with C3, which is Ebru's second most important construct in the rank order. This reorganisation of construct

associations may be due to an attempt to reformulate her existing belief system on the same constructs. We see that the loosening and tightening in the construct associations in Ebru's grids are not merely because of the new constructs being accommodated into the system. This may also be because of self confrontation with the constructs. On the other hand, during the reorganisation at Time 2, Ebru's Time 1 construct 8 in her Time 1 grid remained isolated. This construct has not been connected to the rest of her constructs. The newly conceived and accommodated constructs have not affected its isolated position.

- **New Constructs**

At Time 2, Ebru introduced 9 new constructs (12, 13, 14, 15, 16, 17, 18, 19, and 20) and so had to integrate them into her existing construct system. This integration took place as follows: Construct 12 formed a pair with 11 (and 5 subordinated the pair), forming a small construct cluster.

Construct 13 became one of her high priority constructs and formed a pair with 20 (and 19 subordinated the pair). In this small cluster, we see that 3 of her new constructs, forming a small cluster, joined her belief system.

Construct 14, becoming another high priority construct, entered her existing belief system and formed a tight pair with construct 15 (and construct 1 subordinated the pair). Construct 16 showed a close relationship with the rest of the constructs, (C2, C3, C4, C8, C9, C18, C6 and C10), and closer to construct 2, which is one of her high priority constructs at Time 2.

Construct 17 was in an isolated position at Time 1. Possibly playing the role of a superordinate construct in this cluster (consists of constructs: 1, 15, 14,

5, 12, 11, 13, 20 and 19), it seems to be integrated in a large cluster, involved mostly with newly conceived constructs, (except the constructs 1 and 5, the rest are all new comers) and became a “magnet.” Lastly, construct 18 formed a tight pair with 9 at 100% match level (and 8 subordinated the pair).

- **High Priority Constructs**

Construct 6 (C7 at Time 1) has consistently been Ebru’s top priority construct at both Times 1 and 2. While this construct was an isolated construct at Time 1, it formed a very tight pair (at 100% match level) with construct 10 at Time 2. It existed in a cluster, consisting of 7 constructs (10, 18, 9, 8, 4, and 3). Within this cluster, the level of similarity of her top priority construct is much closer than the constructs in the other cluster.

4.2.3.4 Ebru’s Behavioural Change Between Time 1 and Time 2

When we look at Ebru’s constructs that showed significant changes in her exchange analysis of her Time 1 and 2 grids, we see that Ebru has shown changes on 5 of her constructs, which are 4, 6, 11, 7, and 1 (in the order seen on exchange analysis). In line with these changes, when we look at Ebru’s observation Table 1 and 2 (her first and second observation checklists, showing Ebru’s and the observer’s ratings on Ebru’s constructs in classroom observations), we see that there is consistency between her conceptual and behavioural changes.

Table 4.5 Ebru's Time 1 Observation

Construct Number	CONSTRUCT	Ebru's rating for self as a teacher	Observer's rating
C1	Sympathetic	2	2
C2	Encourages students	2	2
C3	Has good English knowledge	3	3
C4	Uses extra materials	3	1
C5	Attracts students' attention	4	2
C6	Has good pronunciation	2	3
C7	Is prepared before lesson	3	1
C8	Touches students in class	1	2
C9	Gives importance to students' responses	2	2
C10	Warns up students at the beginning of each lesson	2	2
C11	Revises the previous lesson at the beginning of each lesson	2	3
C12	Asks good exam questions	2	Not observed

Table 4.6 Ebru's Time 2 Observation

Construct Number	CONSTRUCT	Ebru's rating for self as a teacher	Observer's rating
C1	Encourages students	2	1
C2	Has good English knowledge	3	3
C3	Uses extra materials	2	1
C4	Attracts students' attention	2	1
C5	Has good pronunciation	2	2
C6	Is prepared before lesson	2	1
C7	Touches students in class	1	2
C8	Gives importance to students' responses	2	1
C9	Warns up students at the begin. of each lesson	2	1
C10	Revises the prev.les. at the begin.of each lesson	2	1
C11	Asks good exam questions	1	Not Observed
C12	Makes students think	2	1
C13	Gives positive energy to students	1	1

C14	Uses appropriate method	2	1
C15	Open to change	2	Not Observed
C16	Has rich vocabulary	4	2
C17	Teaches extra things as well	2	2
C18	Is well organised in teaching	2	1
C19	Uses visual materials	1	1
C20	Makes jokes	1	2

Firstly, at Time 2, on her construct 4, *attracts students' attention*, Ebru rates herself as 4 (on a five-point rating scale) and the observer rates her as 2. However, at Time 2 on the same construct, Ebru sees herself as 2 and the observer gives her 1. That is, while Ebru viewed herself as not good at attracting students' attention, in her first observation, the observer noticed that she was good at attracting students' attention. Because she brought colorful and interesting pictures and cards to the class in order to practice "relative clause" and "how to describe something." Her understanding of "attracting students' attention" was expressed as follows:

Extract 19

If a teacher presents materials in an attractive way, such as; bringing colorful materials; using famous names in examples; using interesting subjects, it is easier to attract the students' attention.

From this point of view, her lesson was successful and the observer rated her as 2. At Time 2, on the same construct, she sees herself as 2 (closer to her ideal teachers) and the observer rated this construct as 1. As she was more aware of how to use the materials, questioning what and why to use them in class. When we asked why she leaned towards more effective teachers on this construct, she expressed that:

Extract 20

It was one of my aims to attract my students' attention in order to teach them better. I knew that the best way for this is to use colorful pictures and so on. In my first observed lesson, I was not sure of how effective I was. But after getting feedback on what I was doing and what else could be done, I felt more self-confident. And now, I am going on with using that sorts of things in order to make my students more "active learners."

We may assume that she has gone through both conceptual and behavioural changes on this particular construct. Secondly, on construct 6, *has good pronunciation*, Ebru rated herself as 3 at Time 1, and as 2 at Time 2. However, the observer rated her as 2 at Time 1, and as 1 at Time 2. This noticeable change in her behaviours on this construct was explained by Ebru as follows:

Extract 21

Being prepared before the lesson for me is to know what I am going to teach in that specific lesson and to prepare myself accordingly. At Time 1, I was preparing my lesson according to the school curriculum and plan of the lesson. But later I noticed that preparing my lesson according to the coursebook we use in our school may not satisfy both my students' and my needs. So, I changed my routine and prepared extra materials, such as visual aids etc... In some cases, I forgot about using the coursebook and went on with my own materials. That's why I sometimes did not follow the national curriculum and school plan. This directed me preparing myself according to students' interests and needs.

In her observed lessons, the observer, at Time 1, observed that she used neatly designed extra materials. The chosen materials on "relative clauses" were

interesting and students' participation was encouraging. At Time 2, on the other hand, the students were waiting for their teacher eagerly. And they were eager to see the new materials on "prepositions." Both the students and the teacher were active in class and the students' motivation was very high. Ebru's behavioural change may be due to her decisions about changing her routine. The decisions may have arisen from her reflections upon past and present practices. Throughout the program, Ebru seems to have utilised her skill of questioning her thoughts and actions. In practice, these may have been tested and new strategies may have been explored to become a more effective teacher.

Thirdly, on her other construct that showed structural change in the exchange analysis, construct 11 has not been observed by the observer. Ebru rated herself as 2 at Time 1 and gave herself 1 at Time 2. So, this may suggest change in her perception of self. She indicated that

Extract 22

At the state schools in Turkey, we generally ask ordinary type of exam questions, which seems to assess students' grammar and reading skills. I used to give such exams to my students. But after seeing some new types of questions and coming to understand that these types of questions are more productive from the students' point of learning, now, I am using more context-based questions, rather than pushing my students into memorisation. I have nearly given up asking "rewrite" or "open to brackets" types of questions.

Another construct that showed significant change in her exchange analysis is construct 7 (at 72.7% level). Both at Times 1 and 2, while she rated herself as

1, the observer's ratings were 2 at both Times 1 and 2. Ebru believes that touching students in class promotes students' participation and encouragement. During observations, the observer noticed that she seldom touched the students. After the first observation, when asked why she had not touched any students in class, the answer was as follows:

Extract 23

In the Turkish culture, students between the age of 6-13 like being touched by their teachers. I try to touch their backs or shake their hands with the intention of "praising" them when they respond well to my questions. But, on the other hand, I notice that I have to strike a balance with the students in order not to lose my authority and not to spoil them. So, I am hesitant to engage in this behaviour. I am questioning this myself and I know that my aim is only to approach them warmly and to show that I respect their answers. Now, I am at the stage of questioning my idea, whether I should touch them or not and/or how much I should touch them to encourage their behaviours.

Ebru, taking into account the human factor, is hesitant on this construct. Our explicit actions are often based on our implicit, unstated knowledge of the nature of practice in many settings. This is Ebru's theory of action and control. She seems to think that praising students' attitudes and feelings as well as their practices should be thoroughly considered and questioned by taking into account both their psychological and social dynamics. Ebru seems to be in a process of evolution and internalisation of her theory of action in this one aspect of her learning to become an effective teacher and coping well with her students in the classroom.

Her last construct that showed significant change is *encourages students* (C1). Ebru rated herself as 2 both times, however, the observer rated her as 2 at Time 1, and as 1 at Time 2. Her ideas about encouraging students was asked of Ebru and she reported that

Extract 24

Students are generally seen as silent and passive learners. However, I believe that they should be part of the lesson and responsible for their learning. They should feel ownership. This can be best supplied by the teachers, by us. I believe that the encouragement of students is one of the most important features of language teaching.

In her first observation, it was identified that, as an understanding teacher, Ebru was always active in encouraging students' participation. Students' questions were answered eagerly and clearly. Ebru's encouragement of students include directing them to speak more, and to take more active roles in class (which makes them better learners). Between Times 1 and 2, Ebru has become a more competent teacher on this construct since this belief was perceived as a need by Ebru. She has spent time and energy on her thinking and practice. Probably with the help of the feedback she got after the observations and her classroom inquiry process, she has tested her beliefs and needs. So, her knowing the goal was in her actions (Schön, 1983). Her reflections in her logs and self-evaluation based on tacit knowledge may have brought a growth of clarity and an awareness of her own thinking and behaviour.

4.2.4 FATMA

She has been teaching English for five years. She is a graduate of Mersin University. Her action research problem is "Developing the self-esteem of the students in my classes."

4.2.4.1 The Content and Structure of Fatma's Personal Theories Regarding Effective Language Teaching at the Beginning of the Study

Fatma's grid data consists of 10 constructs and 11 elements. Fatma's FOCUSED grid shown in Figure 4.10 illustrates the construct and element trees drawn at 80 % cut off point.

- **Construct Links**

The FOCUS analysis of Fatma's first grid produced one big cluster, consisting of 2 main clusters, a pair and one isolated construct. The isolated construct is close to the constructs in the cluster.

At the beginning of her grid, we see that 3 of her constructs (C5, C7, and C8) make up the first cluster. In the first cluster *has good contact with students individually* (C5), her foremost construct in the rank order, and *uses gestures* (C7) associate highly as a pair at 95.5% match level. The construct *uses her teaching voice effectively* (C8) subordinates this pair. And *uses extra materials* (C4), her fourth most important construct, remains isolated in this cluster.

Regarding the organisation of the constructs within the first cluster, we may speculate that Fatma thinks that effective teachers who use gestures have good

contact with students individually and these teachers are also those who can use their teaching voice effectively in class.

FOCUS: fatma1 focus

Elements: 11, Constructs: 10, Range: 1 to 5, Context: effective lang. teaching

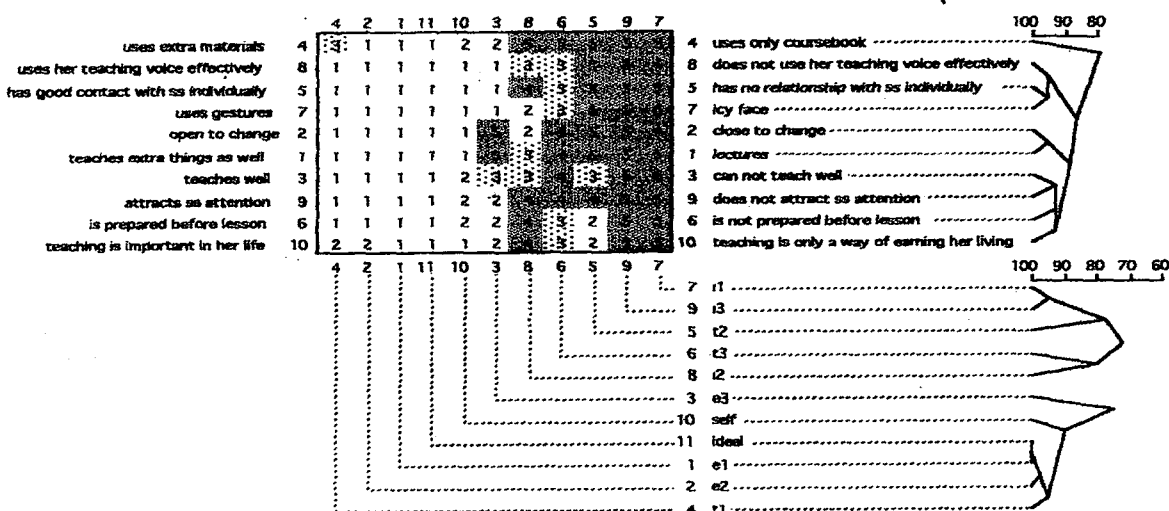


Figure 4.10 Fatma's FOCUSed Grid at Time 1

As a pair, her second most important construct, *open to change* (C2) is associated closely with *teaches extra things as well* (C1) at 95.5% match level. That is, according to Fatma's point of view, a teacher who is open to change can teach extra things in class.

At the bottom of the grid, we see that 4 constructs (C3, C9, C6, and C10) revealed her third construct cluster. Among these constructs, one of her most important constructs, *teaches well* (C3) associates with *attracts students' attention* (C9) at 93.2% match level. At the same level, this pair is matched with two of her constructs, (C6) and (C10). *Is prepared before lesson* (C6), which is one of her most important constructs in the rank order, and *teaching is important in her life* (C10) subordinate this pair. The constructs indicate that a teacher who attracts her students' attention can teach well. And at the same

level, this teacher also is always prepared for his/her classes and takes her job seriously. In other words, a teacher who sees her profession as not only a way of earning money takes his/her job seriously and comes to class well-prepared. Thus they can attract students' attention and consequently teach well.

- **Element Links**

FOCUS analysis of Fatma's Time 1 grid (see Figure 4.10) produced two main element clusters. In the first cluster, I1 and I3 are associated at 95% match level. In this cluster T3 and I2 are associated at 80% match level. T2 is construed as an element between two element pairs; I1 & I3 and T3 & I2. In this cluster, she can not make a clear cut grouping of her effective, typical and ineffective teachers.

In the second cluster, Fatma associates three of her effective teachers, the self as teacher and her ideal self as teacher with her T1. Fatma's ideal self as teacher is linked very highly with E1 (the best teacher she knows) at 100% match level. So, she takes her most effective teacher (E1) as a model teacher. E2 subordinates the elements of E1 and ideal self as teacher at 97.5% match level (see Figure 4.10). And T1 subordinates these elements at 95% match level. She also associates self as a teacher with T1 at 90% match level.

In this cluster, her effective teachers form a group with self as a teacher and ideal teacher. On examining her rating scale, we see that she perceives self as an effective teacher except in need of improvement in being able to teach better, being able to get students' attention, and being prepared well and using extra materials. She believes that she can use her teaching voice and gestures effectively, and teach extra materials. She perceives herself as a

teacher who is open to change and has the ability getting to know all her students' one by one because she takes her job seriously.

4.2.4.2 The Content and Structure of Fatma's Personal Theories

Regarding Effective Language Teaching at the End of the Study

• Construct Links

Fatma's grid at the end of the study consists of 16 constructs and 11 elements (see Figure 4.11). Her FOCUSed grid below shows the construct and element trees drawn at 80% cut off point.

FOCUS: fatma2focus
Elements: 11, Constructs: 16, Range: 1 to 5, Context: effective lang. teaching

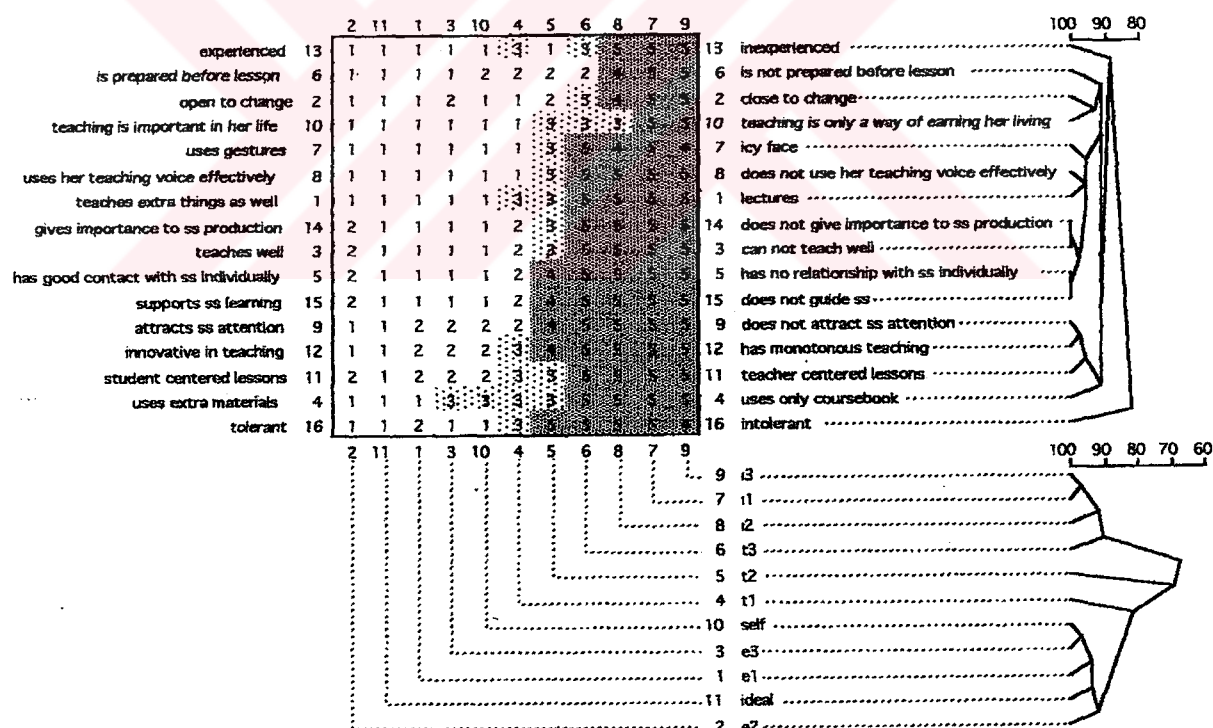


Figure 4.11 Fatma's FOCUSed Grid at Time 2

In Fatma's grid at the end of the study, we see one big cluster, consisting of one large and two smaller construct sub clusters with other 2 isolated constructs. The first sub cluster contains a tight pair and a subordinate construct. The second sub cluster contains two rather tight pairs closely connected to each other at 100% level, and a rather loose pair closely associated with the constructs in two tight pairs. The third sub cluster contains a tight pair with one subordinate construct closer to the pair and another subordinate rather loosely linked with the pair. Two other isolates remain rather loose but close to all constructs in the big cluster at the same level.

If we look at the top of the grid, we see that her first sub cluster consists of 3 constructs (C6, C2, and C10). She forms a pair with *open to change* (C2) and *teaching is important in her life* (C10) at 93.2% match level. *Is prepared before lesson* (C6) is subordinated to the pair closely (at 90.9% match level). In fact, the construct *teaching is important in her life* (C10) is her most important construct in the rank order. She seems to believe that only teachers who take their jobs seriously, not seeing it as a waste of time or a way of earning money, are open to change. And these teachers are always prepared teachers for their classes.

In the second sub cluster towards the middle of the grid, which is the larger one, there are 7 constructs. She associates (C7, C8, C1, C14, C3, C5, and C15) seven constructs, all linked to each other at 98% match level. In this sub cluster, we see two tight pairs, two of which are linked to each other at 100% match level and one other pair with a subordinate construct. She associates *gives importance to students' production* (C14) and *teaches well* (C3) very highly at 100% match level. Fatma highly associates the pairs; C14

and C3 with C5 and C15 (at 100% match level). In fact, in these pairs, we observe that C3, C15, and C5 are also rank ordered as her second, fourth and fifth most important constructs. We may suggest that she believes that teachers who give importance to students' production can teach well, and these teachers have good contact with their students, support their learning and guide them in language learning. It is noticeable that 3 of her most important constructs form tight pairs with each other. In the same cluster, *uses her teaching voice effectively* (C8) and *teaches extra things as well* (C1) are construed as a pair at 95.5% match level.

The smaller sub cluster towards the bottom of the grid consists of four constructs that Fatma finds closely related to each other. Among these, *attracts students' attention* (C9) and *innovative in teaching* (C12) form a tight pair (at 97.7% match level). Fatma seems to think that attracting students' attention, which is her third most important construct in the rank order, is a characteristic of teachers who are innovative in teaching. At a slightly lower level, the constructs *student centered lessons* (C11) and *uses extra materials* (C4) are construed similarly (at 90.9% match level).

Fatma's grid also contains 2 isolated constructs. Constructs *experienced* (C13) and *tolerant* (C16) are found somewhat related to effectiveness in language teaching. Although she finds these two constructs (C13, and C16) as a loose pair, she may be construing these as general characteristics of effective language teachers, not particularly or closely linked with any one aspect of teaching. She may be seeing these two isolated constructs, interestingly one is at the top and the other is at the very bottom of the grid, as two "musts" of a teacher's characteristics in a broader sense. To Fatma, teachers who are

experienced naturally become more tolerant teachers. Those teachers who are experienced and tolerant can get students' attention, they become innovative teachers in classes, as a result these teachers have student centered classes.

- **Element Links**

Element links in Fatma's grid at Time 2 are quite revealing, particularly in terms of the ways in which she construes self and ideal self as teachers in relation to the teachers well known to her and who she classifies as effective, typical or ineffective (see Figure 4.11). Fatma's element set consists of two major clusters. The first cluster contains her 3 ineffective and typical teachers. Fatma's FOCUS analysis reveals that the first element cluster contains three ineffective teachers, in addition to T3. The most related elements of this cluster are I3 and I1 at 96.9% match level. I2 and T3 subordinate these two elements. These elements form a cluster at 90.6% match level.

In her second cluster, she associates self as a teacher and E3 at a very high level (96.9%). So, she takes her E3 as a model teacher. She sees E1, E2 and ideal self close to her E3 and her current self. Her most effective teachers (E1, E2, E3) formed a group with self as a teacher and ideal self as teacher. She places herself among her effective teachers.

At Time 2, Fatma construes E1 (the best teacher she knows) very similarly to her E3 and self as a teacher and close to ideal self and E2. She finds her E1 very similar to ideal self in effective language teaching. She thinks that she may be a little better in attracting students' attention, being innovative in teaching, creating a student centered classroom and using extra materials.

At Time 2, Fatma seems to construe herself as somewhat isolated from the rest of the elements in the grid, placing herself between the effective, ideal and typical clusters. Her highest link (96.9%) was with E3. The self as a teacher was delineated as open to change, teaches well, loves her profession, teaches extra things, experienced, tolerant, warm, is able to use her teaching voice effectively, gives importance to students' production, knows every student one-by-one, and supports students' learning. On the other hand, Fatma was undecided about herself on 5 of her 16 construct dimensions. The undecided construct dimensions generally seem to concentrate on teaching behaviours.

Comparing her Time 1 and Time 2 grids, we see that while in her first grid, her E1 was associated with an ideal teacher at the highest (100%) match level, in her second grid, she noted her E1 as a subordinating element with her ideal teacher. So, we may assume that between Time 1 and Time 2, her best teacher conception has changed slightly.

Changes Observed Between Time 1 and Time 2

- **Content**

Changes in the content of Fatma's two grids were noteworthy. She has incorporated six additional constructs in her repertoire between Time 1 and Time 2. They are; *student centered lessons* (C11), *innovative in teaching* (C12), *experienced* (C13), *gives importance to students' production* (C14), and *supports students' learning* (C15). Another point of interest is the fact that Fatma has cited construct 15 as one of her most important constructs at Time 2 and her other 2 most important constructs, C5 and C3 remained as her most important constructs at Time 2 as well. With the process of classroom inquiry

as well as input process, Fatma seems to have expanded her repertoire of constructs on effectiveness in language teaching. She seems to have become more aware of how to support students' learning and encourage their language use. She deals more with how to become a more innovative teacher in order to create student centered classes. She seems to focus more on methodological skills and classroom management.

- **Structure**

Fatma has shown structural changes in her elements more than her constructs.

4.2.4.3 The Exchange Analysis of Fatma's Time 1 and Time 2 Grids

The Exchange analysis of Fatma's grids at the beginning and at the end of the study reveals that the construct consensus was 80%, and element consensus was 63.6% over 80 cut off level.

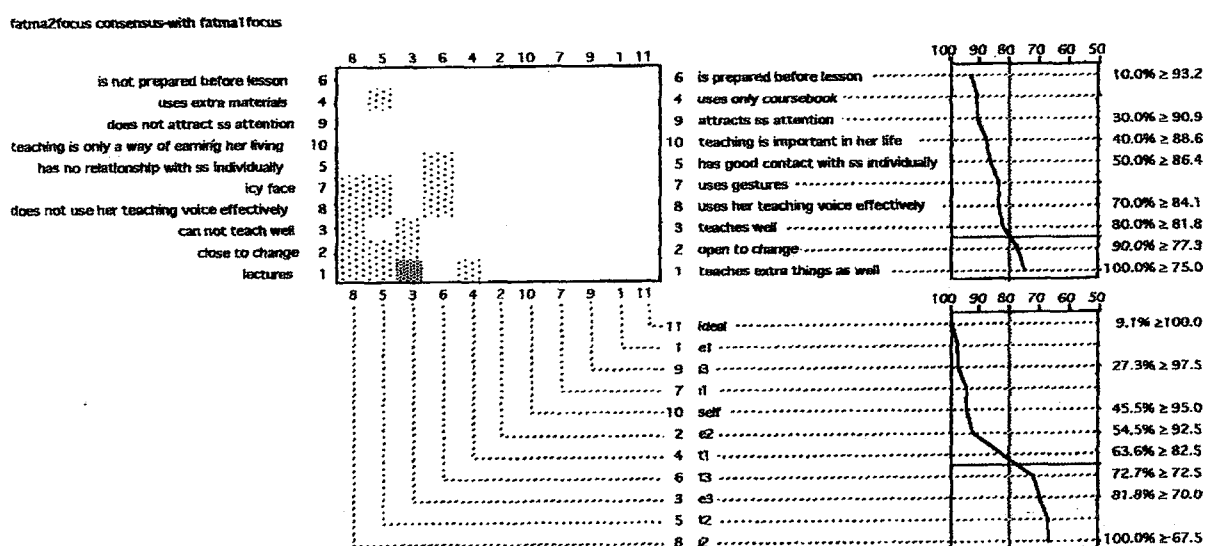


Figure 4.12 The Exchange Analysis of Fatma's FOCUSED 1 and FOCUSED 2

Grids

- **Construct Changes**

Fatma's constructs which showed structural change at 80% cut off point occurred in *open to change* (C2;77.3%), and *teaches extra things as well* (C1;75%) (see Figure 4.12). For example, at the beginning of the study, construct 2, which was her second most important construct in the rank order, was associated, forming a pair, only with *teaches extra things as well* (C1). However at the end of the study, it was placed in a small cluster. It formed a tight pair with *teaching is important in her life*, which was her foremost construct in her rank order, and *is prepared before lesson* (C6). Therefore, the way Fatma construed this construct showed a structural change pattern. At the beginning of the study, she construed *open to change* highly with *teaches extra things as well*. However, at the end of the study, she seemed to construe that teachers whose professions are important in their lives and those who come to class always well prepared are characteristics of teachers who are open to change.

The construct *teaches extra things as well* (C1) went through change. We see that at the beginning of the study, it constituted a pair with *open to change* (C2) at 95.5% match level. At the end of the study, this construct formed a pair with *uses her teaching voice effectively* (C8). The construct, *uses gestures* (C7) subordinated the pair at the same level. Construct 1 was placed in a big cluster at the end of the study.

At the beginning of the study, she seemed to believe that teachers who are open to change teach extra things as well. Surprisingly, we find that these two constructs are those which showed structural changes at the end of the study. However, at Time 2, we see construct 1 in the largest cluster, consisting

of 7 constructs. *Teaches extra things as well* underwent a change and formed a pair with *uses her teaching voice effectively* (C8) along with a subordinated construct *uses gestures* (C7). She seems to construe that teachers who have not got icy facial expressions and those who can use their teaching voices effectively do not lecture in class. Instead they teach extra things as well. Surprisingly, Fatma seems to find a relationship between two management skill characteristics; using gestures and tone of teaching voice, with one personal characteristic; teaching extra things in class. In the same cluster (at Time 2), she construes constructs 1, 7, and 8 similarly with constructs 14, 3, 5, and 15. Interestingly, in this cluster, she places C3, C5 and C15 as her 3 most important constructs in the rank order and closely matched with each other (at 100% level).

- **Element Changes**

The elements that showed significant structural change are T3; 72.5%, E3;70%, T2; 67.5% and I2 67.5%. At the beginning of the study, T3 formed a loose pair with I2. And T2 was placed as a loosely linked element between her I1, I3 and T3, I2, and it formed an element cluster. She seems to place her T2 as having the qualities of both her ineffective teachers and her T3. However, at the end of the study, her typical teachers (T1 and T2) remained as isolated elements between her I1, I2, I3, T3 and E1, E2, E3, her current self and ideal self at the end of the study. Fatma seems to have established a clearer picture in her mind regarding her ineffective, typical and effective teachers. Because, at the end of the study, all of her effective teachers (E1, E2, E3), self as a teacher and her ideal teacher were placed in a group and linked more closely

than her ineffective and typical teachers. Notably, her E3 (which was an isolated element at the beginning of the study) was placed with effective teachers. Fatma seems to have clearer views regarding the features of effective and ineffective language teachers at the end of the study. Thus, we may assume that she had been involved in a process of experience which must have promoted awareness in her conception of the features possessed by effective teachers and regarding the characteristics that lead to effective language teaching. On the other hand, self as a teacher was placed as an isolated element, seeing herself much closer to T1, at the end of the study, self as a teacher was associated closely with E3, which was an isolate like self as a teacher at the beginning of the study. That is, at the beginning of the study, Fatma seemed ambiguous regarding the features of her E3 and self as a teacher. However, at the end of the study, she seems to have clearer ideas on these elements. Another important point is that Fatma had gone through a process of reorganisation of one third of her elements.

- **Isolates**

In Fatma's Time 1 grid, construct 4, which was one of her high priority constructs in the rank order, was in an isolated position, loosely clustered with the rest of the constructs. At Time 2, construct 4 joined the tight construct pair 9 and 12 (part of a cluster including construct 11) to form a cluster. It may be interesting to note that construct 4 became a subordinated construct with construct 11 and a tight pair of constructs 9 and 12. This reorganisation of construct association may be due to an attempt to integrate the 2 new constructs into the existing belief system and one of her most important

constructs. *Uses extra materials* (C4) is associated with 2 of her new constructs; *student centered lessons* (C11) and *innovative in teaching* (C12) and one of her most important constructs *attracts students' attention* (C9). That is, she sees using extra materials as close to her 3 constructs (C9, C11, and C12).

- **New Constructs**

At Time 2, Fatma introduced 6 new constructs (11, 12, 13, 14, 15, and 16) and so had to integrate them into her existing construct system. This integration took place as follows: Construct 11 subordinated the pair 9 and 12 with construct 4 (forming a small cluster). Construct 12 was closely linked to construct 9 (and formed a pair) with 11 and 4. Construct 15 was associated with construct 5 (at 100% match level) and formed a tight pair with constructs 14 and 3. Constructs 13 and 16 remained isolated.

- **High Priority Constructs**

Constructs 5 and 3 were consistently Fatma's top priority constructs at Time 1 and Time 2. Construct 5 formed a tight pair with construct 7, as a part of a small cluster including 7 and 8. At Time 2, it remained linked with construct 15, one of her top priority constructs, very tightly (at 100% match level), and was associated with another pair, 14 and also with 3, another one of her top priority constructs. At Time 1, 2 of her top priority constructs 5 and 3 were placed in different clusters. However, at Time 2 these two constructs (C5 and C3) were placed in the same cluster; each formed pairs with two newly-conceived constructs (C5 and C15 & C3 and C14, see Figure 4.11).

4.2.4.4 Fatma's Behavioural Change Between Time 1 and Time 2

When we look at Fatma's Time 1 observation checklist, and consider Fatma's rating of herself as a teacher at her Time 1 and Time 2 grids, we do not see consistency between her constructs that showed significant structural changes in her exchange grid and behavioural changes. At Time 1 and 2 grids, Fatma rated herself as 1 on construct 1, which means that she sees herself very close to her most effective and her ideal self teacher. On the other hand, in her observed classes, the researcher's ratings of this construct of both times were 3. That is, Fatma believes that she teaches extra things in class. However, in her classes, the researcher observed that she taught only the planned subject by lecturing. This may be because of the nature of the observed lessons, or she does not know yet how or what extra things to teach. When we asked why she had not taught extra things, the reason behind this was expressed as not having enough time for teaching something extra, and because the national and school curriculum do not allow teachers to use extra materials.

Table 4.7 Fatma's Time 1 Observation

Construct Number	CONSTRUCT	Fatma's rating for self as a teacher	Observer's rating
C1	Teaches extra things as well	1	3
C2	Open to change	1	Not observed
C3	Teaches well	2	3
C4	Uses extra materials	2	2
C5	Has good contact with ss individually	1	2

C6	Is prepared before lesson	2	2
C7	Uses gestures	1	3
C8	Uses her teaching voice effectively	1	2
C9	Attracts ss' attention	2	3
C10	Teaching is important in her life	2	2

Table 4.8 Fatma's Time 2 Observation

Construct Number	CONSTRUCT	Fatma's rating for self as a teacher	Observer's rating
C1	Teaches extra things as well	1	3
C2	Open to change	1	Not observed
C3	Teaches well	1	2
C4	Uses extra materials	3	3
C5	Has good contact with ss individually	1	2
C6	Is prepared before lesson	2	2
C7	Uses gestures	1	1
C8	Uses her teaching voice effectively	1	1
C9	Attracts students' attention	2	2
C10	Teaching is important in her life	1	2
C11	Student centered lessons	2	2
C12	Innovative in teaching	2	2
C13	Experienced	1	Not observed
C14	Gives importance to ss' production	1	1
C15	Supports students' learning	1	1
C16	Tolerant	1	2

When we look at Fatma's Time 1 and Time 2 observations (see Table 4.7 and 4.8), we see that the ratings of Fatma's construct 1 remained the same in both observations. And when we look at her grid at the beginning of the study, she highly associated constructs 1 and 2 by forming a tight pair (at 95.5% match level). However, at the end of the study, construct 1 formed a pair with

construct 8 and construct 2 formed a pair with construct 10, and also with construct 6.

We see changes in construct associations and movements depicted in Fatma's grids. We see a process of loosening and tightening of construct associations which may be interpreted as a process of development. Although 2 of her constructs have shown significant structural changes in the grids, the same constructs in her observed classes remained the same. So, we may assume that she has not shown behavioural changes in line with the changes that she has shown in her ideas. This may be because of a need for time and concentration on these constructs.

On the other hand, although she has not shown significant changes in the grids on her constructs 3, 7, 8, and 9, there were major observed changes in her behaviours between her Time 1 and 2 observations. Her construct 4, however slipped. As a whole, nearly half of her observed constructs have shown behavioural changes between Times 1 and 2. But her constructs 1, 5 and 6 (which are observable constructs) remained unchanged from a behavioural perspective. The reasons behind the observed changes in her constructs 3, 7, 8, and 9 may be due to a process of her classroom inquiry experience with project writing and/or the reflections that she got after her 2 observed classes.

4.2.5 HÜLYA

She has been teaching English for 2 years. She graduated from the University of Mersin. She is interested in "How can I increase my students' motivation in English by using different approaches and activities and using extra materials in my 7th grade class" ?

4.2.5.1 The Content and Structure of Hülya's Personal Theories

Regarding Effective Language Teaching at the Beginning of the Study

Hülya's grid data consists of 11 constructs and 11 elements. Her FOCUSed grid shown in Figure 4.13 illustrates the construct and element trees at 80% cut off point.

FOCUS: hülya1focus
Elements: 11, Constructs: 11, Range: 1 to 5, Context: effective lang. teaching

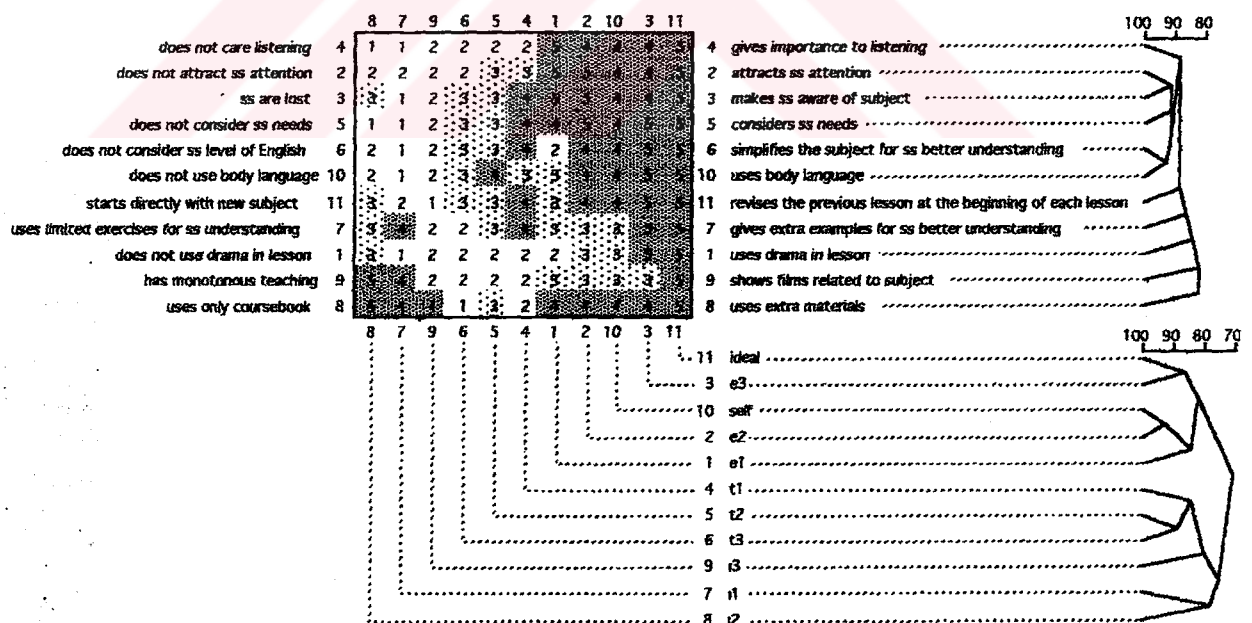


Figure 4.13 Hülya's FOCUSed Grid at Time 1

- **Construct Links**

In Hülya's FOCUSED grid, there appears one cluster, consisting of 5 constructs with an isolated construct (C4), which is very closely linked to this cluster (at 88.6% level). 5 isolated constructs are linked to each other at various levels but have not formed a tight cluster. In the clustered constructs, we notice that only one personal quality of teachers (C10) is clustered with 4 of her teaching behaviours (C2, C3, C5, and C6). Teaching behaviours involve only presentation and management skills of effective teachers

In the clustered constructs, we see two pairs with a superordinate construct. In the main construct cluster, the constructs *attracts students' attention* (C2) and *makes students aware of subject* (C3) are associated at 90.9% match level. At the same level, *considers students' needs* (C5) subordinates this pair. In fact, constructs 3 and 5 in this cluster are two of Hülya's most important constructs in the rank order. Drawing on the established links above, Hülya seems to think that teachers who make students' aware of what they are learning and who consider their needs can attract students' attention in class. In other words, if teachers do not consider students' needs and do not attract students' attention, then students get lost in class. During the elicitation process, she explained the meaning she attached to constructs 2 and 3 as follows:

Extract 25

As a teacher, I do not like asking questions by following students in their rows or according to their names on an attendance list. I ask question and wait for a few seconds in order to see who is lost, and I direct to question to him or her. I believe that this way of asking questions makes

them more active listeners. I can control them easily. But the first thing a teacher in class should do is to make the students aware of what the subject is, what they are going to learn about; how the teacher will present the lesson comes next. Students should be told these in order to make them more aware of what they will be dealing with.

In the same cluster, two of her constructs, *simplifies the subject for students' better understanding* (C6) and *uses body language* (C10) form a pair at 93.2% match level. To Hülya, teachers who use body language are those who simplify the subject for better teaching. She explained the importance she attached to these constructs (C6 and C10) as follows:

Extract 26

Since I am a teacher of English in a state school, my students' level of English is quite low. Some of them even got problems with their mother tongue. And because they have got only 4 hours of English every week, it is rather tiring teaching language. I have to teach them English. I try to teach them effectively in spite of large class sizes. I repeat things in order to teach them better. Therefore, I always find a way of simplifying the subject. I use my body, for example, for teaching vocabulary or I act for teaching tenses. I use even simple objects for clarifying their understanding because we have no English posters, pictures, or well-designed classes. I produce my own materials; draw pictures, cards, and use my body language.

Moreover, we see that the construct, *gives importance to listening* (C4) seems isolated, having close links with the constructs in the main cluster at 88.6% match level. She thinks that giving importance to speaking is an important

feature of effective language teaching but has not established direct links with any of the particular constructs yet.

The constructs *revises the previous lesson at the beginning of each lesson* (C11), *gives extra examples for students' better understanding* (C7), *uses drama in lesson* (C1), *shows films related to subject* (C9) and *uses extra materials* (C8) are isolated constructs, having a relationship with each other at 81.8% match level (see Appendix 6 for the text output). The reason/s for having so many isolated constructs in Hülya's Time 1 grid may be that she can not directly associate these constructs with others yet and organise her personal beliefs neatly. Among these five isolated constructs, two of them (C11 and C7) were perceived to be very important constructs regarding the features of effective language teachers.

- **Element Links**

Hülya's FOCUSed grid produced two main element clusters (see Figure 4.13). In the first cluster, ideal self as teacher and Hülya's third most effective teacher (E3) are construed similarly at 86.4% match level. In the same cluster, Hülya construes her current self and her second most effective teacher (E2) similarly at 93.2% match level. Her most effective teacher (E1) subordinates the pair at 84.1% match level. That is, Hülya perceives herself to be very close to her second most effective teacher (E2). This association may suggest that she perceives herself as an effective teacher already. When we analyse her ratings to identify how she construes self as a teacher, we see that on 8 out of 11 constructs, she was relatively close to the preferred construct pole, as with her ideal self as teacher. The constructs she was undecided about were *gives*

extra examples for students' better understanding (C7), shows films related to subject (C9), and uses extra materials (C8).

In the second cluster, we observe that T2 and T3 are viewed closely at 88.6% match level. T1 subordinates the pair at 84.1% match level. In the same cluster, I1 and I2 are viewed similarly at 77.3% match level. I3 remains in isolation between her typical and ineffective teachers.

These associations reveal that Hülya has got a clear view regarding the distinctive features that distinguish the typical and ineffective teacher groups as well as the features of the teachers in the effective group. However, the level of similarity of each teacher group does not reveal a high level of matching.

Another point worth mentioning here is that although she sees her most effective teacher as E1, her ratings show that E2 is more effective than her E1 (on 5 out of 11 constructs) (see Figure 4.13). And E3 seems to be her model teacher since this teacher has the closest links with her ideal self as teacher.

4.2.5.2 The Content and Structure of Hülya's Personal Theories Regarding Effective Language Teaching at the End of the Study

- **Construct Links**

Hülya's Time 2 grid data consists of 18 constructs and 11 elements. Her FOCUSED grid shown in Figure 4.14 illustrates the construct and element trees drawn at 80% cut off point.

FOCUS: hülya2focus.
Elements: 11, Constructs: 18, Range: 1 to 5, Context: effective lang. teaching

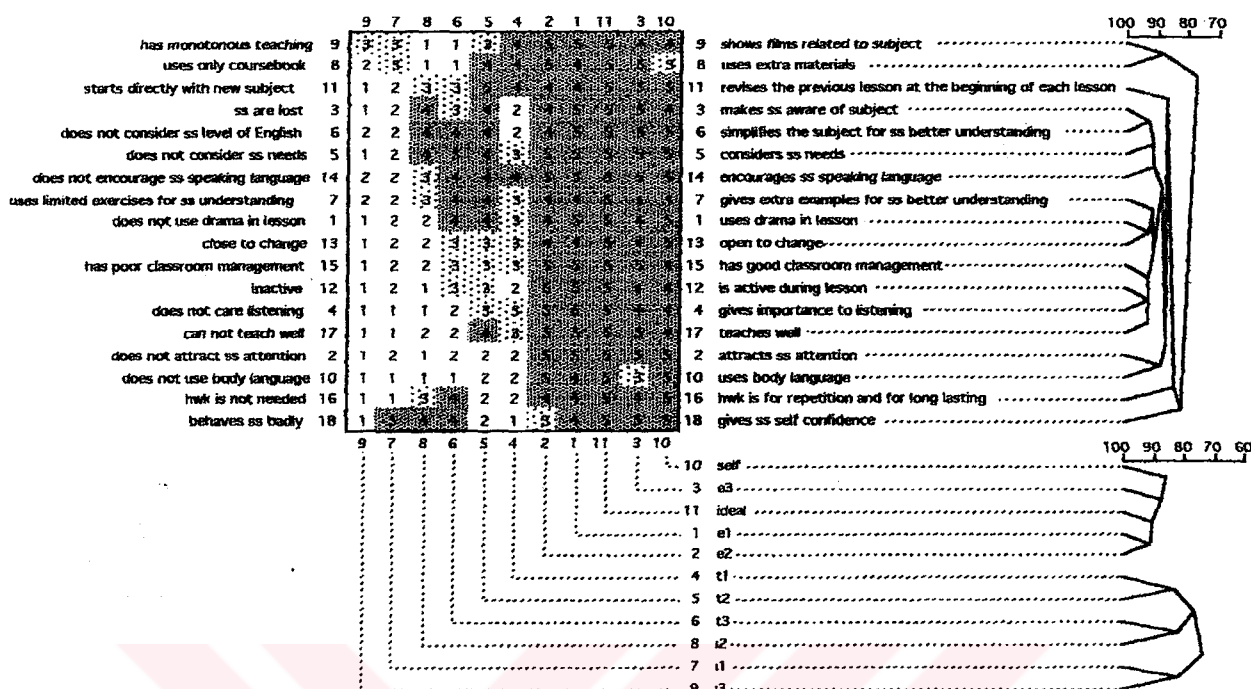


Figure 4.14 Hülya's FOCUSED Grid at Time 2

Hülya's FOCUSED grid at Time 2 produced one rather isolated pair and a large cluster consisting of several sub clusters; there appears a sub cluster consisting of 4 constructs, a second sub cluster consisting of a tight pair and a subordinated construct, a third sub cluster consisting of 4 constructs; two of which form a tight pair with the other two in subordinated position, and one another rather loose pair, and 3 rather isolated constructs within the large cluster and close to the tight pair and other sub clusters at the same level.

At the top of the grid, we see that *shows films related to subject* (C9) is associated with *uses extra materials* (C8) at 88.6% match level. To Hülya, one way of using extra materials is to show films related to the subject.

In the big cluster, we see 3 sub clusters. At the very top of the big cluster, *makes students aware of subject* (C3) forms a tight pair with one of her

most important construct, *simplifies the subject for students' better understanding* (C6) at 93.2% match level. The constructs, *considers students' needs* (C5) and *encourages students' speaking language* (C14) subordinate this pair at a slightly lower level (at 90.9% match level). To Hüllya, making students aware of what and how they are learning, and simplifying the subject in order to increase students' understanding are important features of effective language teaching. And also, teachers who increase students' awareness and simplify the subject for students' better understanding are those who consider students' needs and encourage students' speaking English in class.

In the same cluster, *uses drama in lesson* (C1) and *open to change* (13), which is one of her high priority constructs, form a pair at 93.2% match level. And the construct, *gives extra examples for students' better understanding* (C7) subordinates this pair at 90.9% match level. For Hüllya, giving extra examples for students' better understanding and using drama in the lesson are the characteristics of teachers who are open to change.

The second most closely related construct pair observed in Hüllya's grid was *is active during lesson* (C12) and *gives importance to listening* (C4) at 93.2% match level. At the same level (93.2%), the constructs; *has good classroom management* (C15) and *teaches well* (C17) subordinate this pair (12 & 4).

Taking into account the construct associations above, we may assume that Hüllya thinks that effective language teachers are those who have good classroom management, are active during the lesson, give importance to listening and teach well. In fact, in this sub cluster, we see one of Hüllya's high priority constructs (C17). To Hüllya, teachers who teach well are those who

have got good class management are active during the lesson and give importance to listening.

The construct, *attracts students' attention* (C2) forms a pair with *uses body language* (C10) at 88.6% match level. Attracting students' attention is Hülya's foremost construct. Hülya thinks that using body language is a way of attracting students' attention. The construct, *revises the previous lesson at the beginning of each lesson* (C11) remains in isolation, having links with the pair (C2 and C10). Two other isolates are *homework is for repetition and for long lasting* (C16) and *gives students self confidence* (C18). In fact, Hülya sees *gives students self confidence* as one of her most important constructs in the rank order at Time 2, not matching highly with any of the construct clusters in the grid. Three isolated constructs (C11, C16 and C18) may be construed as teaching behaviours and personal quality features possessed by some effective language teachers, but not as features that lead to effective language teaching.

- **Element Links**

The FOCUS analysis of Hülya's Time 2 grid produced two main element clusters (see Figure 4.14). In the first main cluster, we see that all effective teachers with ideal self as teacher form a separate group. Two of the most effective teachers she knows (E1 & E2) form a pair at 91.7% match level. Ideal self as teacher subordinates this pair at 90.3% match level. E3 is also a subordinate element (at 87.5% match level). Her current self is viewed as another subordinate element at 86.1% match level. From the above associations, we may assume that Hülya thinks that effective teachers and her ideal and current self as a teacher possess very different characteristics than

that of her typical and ineffective teachers. Besides this, she distinguishes features of effective language teachers relatively similar to ideal self and self as a teacher. When we look at this main cluster of the grid, we see that Hülya places herself as a teacher who has got the characteristics of an effective teachers and ideal self as teacher. This association may suggest her limited perceived need for change. When we analyse her ratings to identify how she construes self as teacher, we see that in sixteen out of eighteen constructs, she was close to the preferred construct pole, as with her ideal self as teacher. The constructs she was underdetermined about were *uses extra materials* (C8) and *uses drama in lesson* (C1).

In the second main element cluster, we observe that her typical and ineffective teachers form a separate cluster. Her T1 and T2, T3 and I2, and I1 and I3 form three different pairs. These associations reveal that Hülya has not got a clear view regarding the features that distinguish the teachers in the typical and ineffective groups as much as the features of the teachers in the effective group. While two of her most typical teachers (T1 and T2) form a pair, T3 is viewed similar to I2 and her most and the least ineffective teachers (I1 and I3) are viewed similar to each other at very low levels of similarity.

Changes Observed Between Time 1 and Time 2

- **Content**

The comparison of Hülya's two grids regarding the changes in content reveals significant results. Her second grid reveals that she has incorporated seven additional constructs in her repertoire between Time 1 and Time 2.

These additional constructs are; *is active during lesson* (C12), *open to change* (C13), *encourages students' speaking language* (C14), *has good classroom management* (C15), *homework is for repetition and for long lasting* (C16), *teaches well* (C17) and *gives students self confidence* (C18). Of these seven additional constructs, four (C12 & C14 and C15 & C16) imply management skills, one (C17) a presentation skill, and one (C18) a personal quality, whereas one (C13) implies academic quality.

Another point to be mentioned between 2 grids is that Hülya has not cited any of her Time 1 high priority constructs in the rank order at Time 2. She has cited 2 different Time 1 constructs (2 and 6) as the most important constructs at Time 2 grid. Instead she has used 3 of her new (Time 2) constructs (13, 17 and 18) as high priority constructs at Time 2. The rationale for content changes between Time 1 and Time 2 may be due to Hülya's involvement in a developmental process within which she tests her existing theories in light of the new experience and information gained.

Hülya's focus of action research project was on "increasing students' motivation in English by using different approaches and materials." So, for her additional 7 constructs, she explained the reasons as follows:

Extract 27

Ongoing reflections, concerning what was going on, and trying to be effective as much as I could show that I was experiencing both success and failure during the process. I was testing my objectives, changing my direction and trying to find out what would be better for particular problems. Increasing motivation and their language learning abilities pushed me to be more active in class, to gain better classroom control

while giving more self confidence to my students and trying to teach them better. They all got along with each other in a circle. I have always wanted to be an active and successful teacher. In order to reach my goals, I have to be a teacher who is open to development, open to new experiences, and open to change.

Indeed various methods of fostering reflective activity, many elements for increasing students' motivation developed in the course of time; such as using OHP, bringing native speakers to the classroom, organising "English nights and shows," and teaching English songs. Hülya's classroom performed like a "football team," engaged in developing an alternative seating plan (U shape, O shape, etc...) and types of exercises. She evaluated her action steps taken and shared with her colleagues in the program, asking for help or ideas when necessary.

- **Structure**

The discussion about the structural changes in Hülya's grids at Times 1 and 2 will be based on the exchange grid analysis below.

4.2.5.3 The Exchange Analysis of Hülya's Time 1 and Time 2 Grids

The exchange analysis of Hülya's FOCUSED 1 and 2 grids shows that the construct consensus between the first and the second grid is 36.4% and the element consensus is 36.4% over 80% match level.

hülya2focus consensus-with hülya1focus

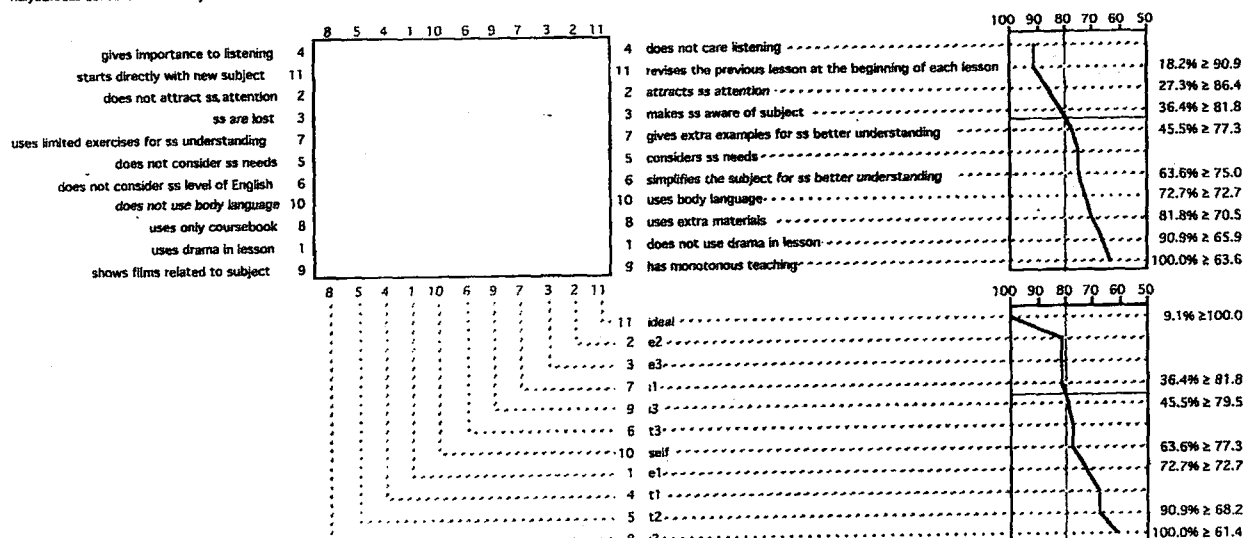


Figure 4.15 The Exchange Analysis of Hülya's FOCUSED 1 and FOCUSED 2

Grids

- Construct Changes**

Significant structural changes are observed in Hülya's exchange grid.

These significant changes (at 80% cut off point) took place in 7 out of 11 constructs. These changes are: (C7; 77.3%) *gives extra examples for students' better understanding*, (C5; 75%) *considers students' needs*, (C6; 75%) *simplifies the subject for students' better understanding*, (C10; 72.7%) *uses body language*, (C1; 65.9%) *uses drama in lesson*, (C8; 70.5%) *uses extra materials*, and *shows films related to subject* (C9; 63.6%).

At the beginning of the study, *gives extra examples for students' better understanding* (C7) and *uses drama in lesson* (C1) were 2 of Hülya's isolated constructs. These two constructs formed a tight pair with each other at 90.9% match level at Time 2. They were placed in a large cluster. Another two isolated constructs (C9 and C8) at Time 1, having no close relationships with any of the constructs directly, formed a pair at Time 2 (at 88.6% match level).

Constructs 5 and 6 were placed in a cluster and *considers students' needs* (C5) subordinated the pair, *attracts students' attention* (C2) and *makes students aware of subject* (C3) whereas construct 6, *simplifies the subject for students' better understanding*, formed another pair, with *uses body language* (C10) at Time 1. However, *considers students' needs* (C5) subordinated the pair constructs (C3 and C6), *makes students aware of subject* and *simplifies the subject for students' better understanding* at Time 2. While construct 5 subordinated construct 3 at Time 1, it became a subordinate construct again at Time 2 with constructs 3 and 6.

While one of Hülya's top priority constructs, *uses body language* (C10) formed a tight pair with *simplifies the subject for students' better understanding* (C6) at Time 1, this construct formed another pair with one of Hülya's Time 2 high priority constructs, *attracts students' attention* (C2) at 88.6% match level.

The exchange analysis of Hülya's Time 1 and Time 2 grids revealed that she seemed to have gone through a process of integration and reorganisation of more than half of her constructs in light of the experiences she had been involved in. Furthermore, she must have reflected on relations between her new experiences and her previously hypothesised constructs.

- **Element Changes**

When we examine the changes that took place in the element structure, we come up with changes in the way Hülya perceived things. These are; I3 (79.5%), T3 (77.3%), self as a teacher (77.3%), E1 (72.7%), T1 (68.2%), T2 (68.2%) and I2 (61.4%) over 80% cut off point (see Figure 4.14).

If we look at Hülya's exchange grid, we see that all of her typical teachers (T1, T2 and T3) have gone through a structural change. At the beginning of the study, all of her typical teachers formed a sub cluster, and were placed in a typical and ineffective teacher cluster. Her T2 and T3 appear to have constituted a pair and were subordinated to T1. However, at the end of the study, Hülya construed her T1 and T2 as a pair and her T3 formed a pair with her second ineffective teacher (I2). This means that Hülya started to view T1 as possessing more common features with T2 and her T3 as possessing more common features with her I2. At the end of the study, Hülya does not seem to have established a clear figure in her mind regarding her typical and ineffective teachers have been grouped separately. Although she sees her typical and ineffective teachers in a cluster at both times, she does not distinguish them by putting them into separate groups or ranking them from the most to the least at Time 2. This may suggest that she is still undecided about the features of typical and ineffective teachers.

The other elements that showed structural changes are I2 and I3. At the beginning of the study, her I2 formed a pair with I1, and I3 remained in isolation between her I1 and I2 and her typical teacher clusters. However, at the end of the study, I1 and I3 were associated similarly. I2 lost its ineffective position and formed a pair with one of her typical teachers (T3).

Another element, E1, has shown structural change between the two time period. At the beginning of the study, E1 was a subordinate element of a pair. However, at the end of the study, E1 appears to have constituted a pair with E2 closely at 91.7% match level. Thus, we may speculate that Hülya sees her second most effective teacher (E2) as much closer to her first most effective

(E1) teacher. She seems to have established a clearer idea in her mind regarding the features of this teacher as she has formed a pair and grouped all her effective teachers together with her ideal and self as a teacher.

Another point we should deal with is that her perception of self as a teacher showed significant structural change. As we mentioned before, in her first grid, she found self as teacher as having the qualities of E2 and E1. This change is also reflected in her ratings of herself in each construct in two of her grids. That is, in her Time 1 grid, she viewed self as a teacher close to the preferred pole on 8 out of 11 constructs. However, she identified her weaknesses on some constructs; giving extra examples for students' better understanding, using drama and showing films related to students' subjects. At her Time 2 grid, on the other hand, she started to view her current self very close to her effective and ideal self as teacher. She seems to be undecided about self as a teacher only on one construct, which is using extra materials. This may suggest that, Hülya has been in the process of testing her own personal theories in terms of the effectiveness she attached to the elements in the light of the new experience she has been involved in.

Regarding the changes Hülya's elements had gone through, we may conclude that the experiences she has gained and the process she has involved in led her to rethink her views on the teachers she knows. The experiences in her classroom inquiry, her readings and her observed classes and the feedback she got as well as her personal experiences must have played important roles on this change. Marland (1998), on this issue, points out that

Revision of practical theories of teaching involves a recurring cycle of activities familiar to action researchers viz. planning classroom activities, implementing and observing those activities and reflecting on them. (p. 20)

Hülya's critical thinking and reflections during the process of classroom inquiry contributed to her action research project writing as she revised her personal and practical knowledge and theories. Thus, Hülya's attempts to change her teaching impeded and rendered more effectively. As can be seen from the analysis, change to one component inevitably resulted in change in the others. So, Hülya's thinking and theories in action have undergone a major transformation.

- **Isolates**

In Hülya's Time 1 grid, there were 6 isolated constructs, which is nearly half of her Time 1 constructs. These isolated constructs were C4, C11, C7, C1, C9, and C8. What is noteworthy mentioning in here is that four out of six isolated constructs in Hülya's Time 1 grid underwent structural changes. These constructs are C1, C7, C8 and C9.

At Time 1, construct 4 seems to be in an isolated position clustered with 5 other constructs. At Time 2, construct 4 forms a tight pair with construct 12 and is subordinated by two other constructs, which are C15 and C17, and forms a sub cluster. Among these subordinated constructs, C17 is one of Hülya's high priority constructs at Time 2. It may be interesting to note that construct 4 formed a sub cluster with 3 of Hülya's newly conceived constructs at Time 2.

This reorganisation of construct associations may be due to an attempt to integrate the seven new constructs introduced to her existing belief system.

Other isolates, constructs 9 and 8 at Time 1, formed a pair at 88.6% match level. Another two isolates, constructs 1 and 7 formed another small sub cluster at 90.9% match level at Time 2. The last isolated construct (C11) at Time 1 remained isolated at Time 2.

Drawing from the above association of constructs, we may report that Hülya's belief system has changed between Times 1 and 2. In line with the ideas of Richards and Lockhart (1994, p. 30), the values and theories Hülya possesses related to content and structure must have served as background to much of her decision making and actions.

- **New Constructs**

At Time 2, Hülya revealed seven new constructs (C12, 13, 14, 15, 16, 17, and 18). The integration of these seven newly conceived constructs is construed as follows: Constructs 12, 13, 15 and 17 formed a sub cluster with Hülya's one of Time 1 construct (C4). Construct 12 formed a tight pair with construct 4, which was an isolate at Time 1, and constructs 13, 15 and 17 subordinated this pair. It is interesting to note that among these constructs 2 of them (C13 and C17) were construed as two of her high priority constructs at Time 2. Another point to be mentioned is that all five of these constructs are viewed very closely to each other (at 90.9% match level).

Construct 14, on the other hand, formed another sub cluster with a pair of 3 and 6. The pair is subordinated by construct 5 as well. Constructs 16 and 18 remained in isolation. However, construct 18 was rank ordered as one of

Hülya's Time 2 high priority constructs. Among these new constructs, Hülya cited 3 of them (C13, C17 and C18) as high priority constructs in the rank order at Time 2.

Between Times 1 and 2, Hülya's incorporation of 7 new constructs into her belief system reveals a process of innovation and implementation which began in her classroom. This promoted her awareness of teaching and her own learning. Thus, this influence and experience have been brought to bear on all her inter-related sub systems of thinking. Hülya started to focus on more realistic approaches to solving her real classroom problems. Her experience of learning and trying to bring innovations into her teaching revealed the way in which the concepts were having an effect on learning. Consistent with Loughran's idea (2002), in this process, Hülya has demonstrated the value of questioning her taken-for-granted assumptions of practice and reframed her learning and actions.

- **High Priority Constructs**

Hülya did not cite many of her Time 1 high priority constructs at Time 2. That is, she cited only 2 of her Time 1 constructs as high priority constructs at Time 2. 3 of her top priority constructs are presentation skills—*revises the previous lesson at the beginning of each lesson* (C11), *gives extra examples for students' better understanding* (C7), and *uses body language* (C10). One top priority construct is a management skill, *makes students aware of subject* (C3), and 1 top priority construct is a personality characteristic of an effective language teacher, *considers students' needs* (C5) at Time 1.

However, at Time 2 she added 7 new constructs to her repertoire. She cited 3 of these new constructs as her 3rd, 4th, and 5th most important constructs in her Time 2 grid. These constructs are: *open to change* (C13), an academic quality, *teaches well* (C17), a presentation skill, and *gives students self confidence* (C18), a personality characteristic of an effective language teacher. Her first and second Time 1 constructs are cited as the most important constructs at Time 2. She has cited *attracts students' attention* (C2) and *simplifies the subject for students' better understanding* (C6), the former implies a management skill and the latter implies a presentation skill of an effective language teacher.

Between Time 1 and Time 2, Hülya has changed her top priorities. This may be due to the process she has been involved in. She has started to enlarge her personal theories with the help of her new repertoire. It is quite natural to accommodate new top priority constructs. This implies change in both her personal theories and her approach to effectiveness in language teaching and the way of seeing effective teachers.

4.2.5.4 Hülya's Behavioural Change Between Time 1 and Time 2

Seven out of 11 of Hülya's constructs showed significant structural changes in her exchange grid. If we look at the constructs that showed structural changes (C7, C5, C6, C10, C8, C1, and C9) we see consistency with her behaviours, which suggest the followings:

Construct 9, *shows films related to subject* has not been observed in any of her classes. The reason behind this was stated in her interview.

Extract 28

Although, I believe that, visual learning is an important feature of language teaching, I, personally, have neither the chance of using this technology because we have no laboratory, no audio-visual system at our state school nor the skills for using it. I had the opportunity of visual language learning. I watched films related to particular subjects when I was a student. It was enjoying and funny. The classroom atmosphere was better and more encouraging. I believe that all language teachers should be given the chance to teach language through audio-visual materials, especially watching films related to the subject matter. But, as you see, in my school, we do not have any facilities.

In fact, *shows films related to the subject* was one of her constructs which she was undecided about in her Time 1 grid. And at Time 2, she started to see that using films is a way of using extra materials. Related with this construct, she has afforded time and energy to break monotonous teaching in her observed classes. Since she did not have the chance of using visual facilities, she used an OHP instead. She confessed that it was her first experience with the OHP. The lesson observed was quite successful, and she was happy with the reaction she got from her students.

The other construct which shows a significant change in her exchange grid is *uses drama in lesson (C1)*. As stated before, the meaning she attached to this construct is role-playing. In her observed lessons, role playing was used both for teaching vocabulary and for the purpose of reading. Both Hülya and her students played roles for learning vocabulary and for using dialogues as a reading activity. At Time 1, she was not quite sure about how to conduct a role

playing activity in class and rated herself as 3 and the observer's rating was 3. However, at the end of the study, she rated herself as 1 and the observer's rating was 1, which means that she has shown a significant change on this construct. She explained the reason as follows:

Extract 29

I always do role playing in my teaching. But now, I feel that I am quite sure of what I am doing and how. Both my students and myself are happy with such dialogues.

Table 4.9 Hülya's Time 1 Observation

Construct Number	CONSTRUCTS	Hülya's rating for self as teacher	Observer's rating
C1	Uses drama in lesson	3	3
C2	Attracts students' attention	2	2
C3	Makes students aware of subject	2	2
C4	Gives importance to listening	2	3
C5	Considers students' needs	2	1
C6	Simplifies the subject for students' better understanding	2	2
C7	Gives extra examples for students' better understanding	3	2
C8	Uses extra materials	2	3
C9	Shows films related to subject	3	Not observed
C10	Uses body language	2	2
C11	Revises the previous lesson at the beginning of each lesson	2	2

Table 4.10 Hülya's Time 2 Observation

Construct Number	CONSTRUCTS	Hülya's rating for self as teacher	Observer's rating
C1	Uses drama in lesson	3	1
C2	Attracts students' attention	1	2
C3	Makes students aware of subject	2	3
C4	Gives importance to listening	2	2
C5	Considers students' needs	1	2
C6	Simplifies the subject for students' better understanding	1	1
C7	Gives extra examples for students' better understanding	2	1
C8	Uses extra materials	3	2
C9	Shows films related to subject	2	2
C10	Uses body language	1	1
C11	Revises the previous lesson at the beginning of each lesson	1	1
C12	Is active during lesson	2	1
C13	Open to change	1	Not observed
C14	Encourages ss' speaking language	1	2
C15	Has good classroom management	2	2
C16	Homework is for repetition and for long lasting	1	Not observed
C17	Teaches well	2	2
C18	Gives ss self confidence	1	1

At Time 1, she rated herself as 2 on construct 8, *uses extra materials*, and later 3. The observer's ratings were 3 and later 2. She has changed her thinking on this construct and at the end of the study, and started to believe that she is not using enough extra materials. However, between Times 1 and 2, the observer's rating moved towards to the preferred pole because, in her 2nd

observed class, the observer noticed that she used not only the coursebook but also more extra materials-mostly of her own production.

Using body language (C10) was rated as 2 by both parties and as 1 later. So, she started to use body language more effectively. This construct in both her observed classes, was construed for attracting students' attention through acting.

Simplifying the subject for students' better understanding (C6) was rated as 2 by Hülya and 1 by the observer. The same construct was rated as 1 by both parties at Time 2. She started to view her teaching better on this construct. She explains that

Extract 30

I know that presenting a new subject requires practice. Some points may be difficult for students' to understand. If I notice that students are having difficulties, I immediately start to simplify through explanation, drawing and acting. Knowing your students' level of English gives teachers more freedom in using appropriate ways of presenting a lesson. The students' level of English should be known by teachers in order to teach accordingly. In this case, your teaching may require simplification of your presentation or more practice exercises.

Considering students' needs (C5) is seen as awareness-raising. She explains that

Extract 31

In raising my students' awareness of what and why they are learning, I can easily communicate with them. Students may not know what and why they are learning. Teachers should make students aware of the

subject or language. Naturally, students will become more aware of what they need and why. This creates a friendly atmosphere in the classroom and I arrange my teaching or change my teaching according to their needs.

Also in her research project, by giving them a questionnaire, Hülya tried to understand their likes/dislikes and interests. As a result, she changed her teaching. She started to take into consideration her students' needs and tried to change.

Giving extra examples for students (C7) is her last construct that showed significant change. Her ratings and the observer's ratings on this construct went to the preferred pole between Times 1 and 2. For giving extra examples, she used both worksheets and examples from students' daily life through writing on the board or asking questions. Extra examples were used for the purpose of grammar reinforcement. For this purpose, every item in the classroom; objects, even her students as individuals, were used. We may assume that, in light of her knowledge, experience and beliefs, Hülya reviewed her ideas and decisions constantly and acted accordingly. How she verbalized her thoughts is that

Extract 32

Being aided and stimulated by the program, I started to be involved in finding ways of initiating the process and raising ideas; I amended my views and made decisions.

This facilitation in the progress might have led her seek solutions rather than provide ready-made solutions.

4.2.6 IBRAHIM

He has been teaching English for three years. He graduated from the University of Mersin. His action research title is "How to improve 5th grade students' spoken language through audio-visual materials."

4.2.6.1 The Content and Structure of Ibrahim's Personal Theories

Regarding Effective Language Teaching at the Beginning of the Study

- **Construct Links**

Ibrahim's Focused grid data consists of 10 constructs and 11 elements.

Figure 4.16 illustrates the construct and element trees drawn at 80% cut off point.

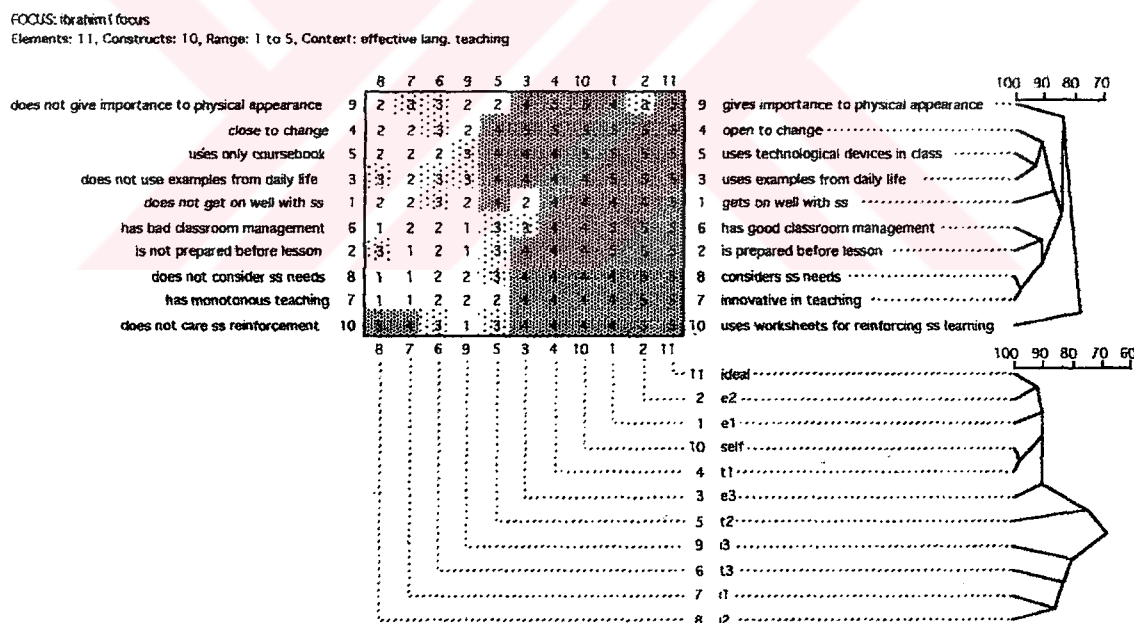


Figure 4.16 Ibrahim's FOCUSED Grid at Time 1

The FOCUS analysis of Ibrahim's grid produced one big cluster consisting of 2 sub clusters and one isolate linked to the two sub clusters at the

same level with two isolates. If we look at the top of the grid, we see that Ibrahim construes *uses technological devices in class* (C5) and *uses examples from daily life* (C3) very similarly at 93.2% match level. *Open to change* (C4) subordinates this pair at a slightly lower match level of 90.9%. In fact, Ibrahim sees *open to change* (C4) as one of his most important constructs. We suggest that he associates teachers who use technological devices and examples from daily life in class with those teachers who are open to change. The constructs in the pair (C5 and C3) which are related to teaching behaviours are clustered with one of the constructs concerning the academic qualities of an effective language teacher.

Towards the middle of Ibrahim's Time 1 grid, we see that *has good classroom management* (C6) is associated with *is prepared before lesson* (C2) closely at 90.9% match level. That is, Ibrahim thinks that teachers who have got good classroom management skills are those who are well prepared for their classes. Being a well prepared teacher for a lesson is construed as one of the most important features of effective language teachers.

At the highest match level (97.7%), two of Ibrahim's most important constructs, *considers students' needs* (C8) and *innovative in teaching* (C7) form a pair. This pair indicates that to Ibrahim, teachers who consider students' needs are those who are innovative in class.

The construct, *gets on well with students* (C1) seems to be an isolated construct in the middle of the grid. However, this is Ibrahim's most important construct and it links all his constructs (4, 5, 3, 1, 6, 2, 8, and 7) in the cluster at 84.1% match level. So, we suggest that it is one of his superordinate constructs. The reason for seeing a relationship with *gets on well with students*

and the rest of the constructs in the cluster may be due to the fact that Ibrahim sees this personal quality more specifically related to the teaching behaviours and academic qualities of an effective language teacher. So, personal qualities of teachers are given higher priority and importance than teaching behaviours and academic qualities of teachers. In his observed classes, it is notable that this construct was observed and may be said that his relationship with his students was admirable and beyond the standards. He is one of the most appreciated teachers in his department. Because of his good relationships not only with his students but also with his colleagues and the principals of the school, he was appointed as Head of English Language Department of this school; even though he is not an experienced teacher and is working with many experienced teachers.

Finally, we observe that constructs *gives importance to physical appearance* (C9) and *uses worksheets for reinforcing students' learning* (C10) are placed in isolation although they are believed to be the features possessed by teachers regarded as effective language teachers.

- **Element Links**

Ibrahim's focused grid data produced 2 main clusters and 2 isolates (see Figure 4.16). Regarding the organisation of elements, we may comment that Ibrahim has not established a clear cut pattern of grouping for his effective, typical and ineffective teachers yet in his mind. However, he has got a clearer picture in his mind for his ideal teacher and his current self, E1, E2 and T1 because the level of similarity among the above elements is higher than that of the rest of the elements.

In the first cluster at the top of the grid, he views his E2 and ideal self as teacher as similar at 92.5% match level. He sees himself very close to his T1 at the highest match level (97.5%). His most effective teacher, E1, remaining as an isolated element, seems to have the features of his ideal teacher and current self as a teacher, E2 and T1.

We see that he perceives self as a teacher as having the features of most of his effective teachers, except in need of improvement of the use of examples from daily life, getting on well with students, having better classroom management, being a well prepared teacher, considering students' needs more, being innovative during teaching and using worksheets for reinforcing students' learning. His perception of a need to become a much better teacher may contribute to his development.

In the second element cluster, his ineffective teachers and his T3 are included. I1 is viewed as similar to I2 at 85% match level. I3 and T3 subordinate these two elements.

Moreover, Ibrahim's E3 and T2 are placed in isolation between the clusters consisting of effective, typical and ineffective teachers. We may further suggest that he either lacks self confidence or he feels the need to improve more to become an effective teacher.

4.2.6.2 The Content and Structure of Ibrahim's Personal Theories Regarding Effective Language Teaching at the End of the Study

- **Construct Links**

At Time 2, Ibrahim's grid data comprised 19 constructs and 11 elements.

The FOCUS printout illustrated in Figure 4.17 displays the construct and element trees drawn at 80% cut off point.

FOCUS: ibrahim2focus

Elements: 11, Constructs: 19, Range: 1 to 5, Context: effective lang. teaching

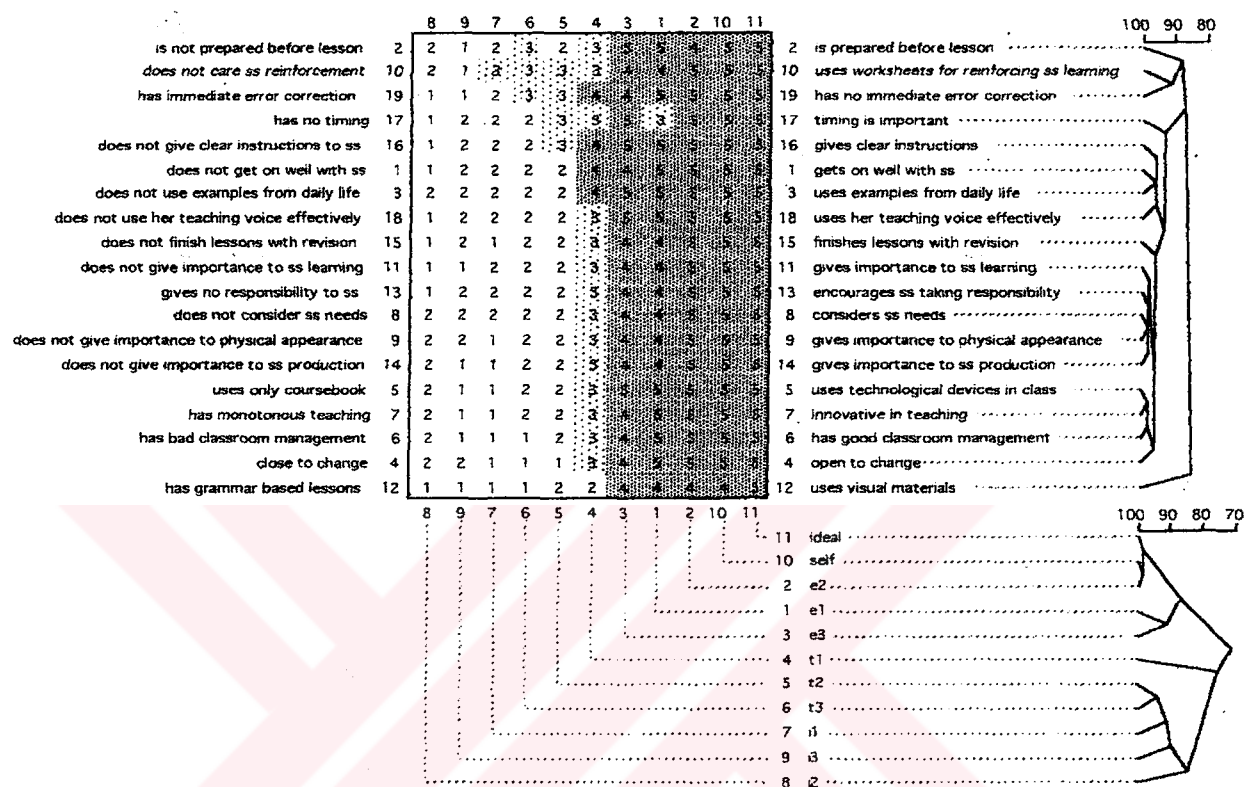


Figure 4.17 Ibrahim's FOCUSED grid at Time 2

In the FOCUS analysis of Ibrahim, there appears to be one rather isolated main cluster close to one big cluster consisting of 3 sub clusters and one isolated construct associated at the same level. At the top of the grid, there appears a main cluster consisting of a pair and an isolate. His main construct cluster consists of 3 sub clusters; the first one comprises a tight pair with two subordinated constructs and two other isolated constructs. The second sub cluster contains 5 constructs tightly linked with each other. He associates these five constructs closely with each other. The third sub cluster contains a tight pair and two other tight subordinated constructs. His grid has produced a rather

loose isolated construct close to the main cluster at the top of the grid and the main large cluster at the same level.

If we look at the main cluster at the very top of Time 2 grid, we see that he associates *uses worksheets for reinforcing students' learning* (C10) with *has no immediate error correction* (C19) at 90.9% match level; *is prepared before lesson* (C2) subordinates this pair at 88.6% match level. For Ibrahim, being an effective language teacher entails highlighting important parts being well prepared, using worksheets for students' reinforcement, and being skillful in error correction.

In the larger main sub cluster towards the middle of the grid, Ibrahim sees a direct relationship between *gets on well with students* (C1) and *uses examples from daily life* (C3) at 95.5% match level. Two of his constructs regarding the management skills of effective teachers; *gives clear instructions* (C16) and *uses her teaching voice effectively* (C18) are construed at the same level with this pair (95.5%). Although *timing is important* (C17) seems to be an isolated construct, it is associated closely with the constructs (C16, C1, C3 and C18) at 93.2% match level. Thus, Ibrahim seems to find *gets on well students* and *uses examples from daily life* in language classes as two important characteristics of an effective language teacher. To him, these two important characteristics can be construed by giving instructions clearly and using teaching voice effectively in class.

In the largest sub cluster, towards the end of the grid we see another sub cluster. The sub cluster consists of 5 constructs, two of which form a tight pair with 3 tightly subordinated constructs. It is noteworthy that Ibrahim puts four personal qualities of teachers with only one management skill in this group. In

this cluster, Ibrahim construes *considers students' needs* (C8) and *gives importance to physical appearance* (C9) similarly at 97.7% match level. Similarly, at the highest level of match, he associates *encourages students' taking responsibility* (C13), *gives importance to students' production* (C14), and gives importance to students' learning (C11) with the pair (C8 & C9). The construct, *finishes lesson with revision* (C15) is associated with the constructs (C11, C13, C8, C9 and C14) in this sub cluster very highly at 95.5% match level. Within this sub cluster, it is also noteworthy that Ibrahim associates 4 of his most important constructs, C8, C11, C13 and C15 with each other very highly. Thus, Ibrahim seems to find that considering students' needs, giving importance to students' learning and their production, encouraging students' taking responsibility and finishing lessons with revision are the most important characteristics of effective language teachers and these teachers give importance to their appearance.

In the last sub cluster, he associates two academic qualities (C7 and C4) with two teaching behaviours (C5 and C6). *Uses technological devices in class* (C5), *innovative in teaching* (C7) and *has good classroom management* (C6) are construed similarly at 97.7% match level. The construct, *open to change* (C4) is associated highly as a subordinate with the constructs in this cluster at 95.5% match level. The reason why he construes the constructs C5, C7 and C6 very similarly with *open to change* (C4) and connects them to each other at a high level of match might be that being open to change for a teacher requires using technological devices in class, being innovative in teaching and having a good classroom management.

Another construct, *uses visual materials* (C12) is seen as an isolate. It has direct relationships with all the constructs in the big cluster at 84.1% match level. That is, Ibrahim sees using visual materials as a basis for being an effective language teacher but cannot associate it directly to any of his constructs yet. He might need some time for establishing a link with his other personal constructs. Regarding the organisation of the constructs, what is noteworthy in his second grid is that he could associate the constructs more similarly and began to make groupings of constructs in a much more sensible way.

- **Element Links**

At Time 2, Ibrahim's element links (see Figure 4.17) seem much more patterned than in his previous grid. In his grid, we see two element clusters and an element pair with an isolated element. Each teacher group forms a separate cluster, which may suggest that his classification of the elements on his constructs has become more consistent and orderly.

Ideal self as teacher is clustered with the effective teacher group and his current self as a teacher. In his first cluster, he views his current self as a teacher, his ideal self and his second most effective teachers (E2) similar to each other at the highest match level of 98.7%. Regarding the organisation of elements, E2 seems to be the model teacher who he eventually would like to be on 17 of his 19 constructs. When we look at his ratings for self as teacher, it can be seen that while he construes himself as closer to the preferred construct pole on 18 constructs he seems undecided about one construct which is *uses visual materials* (C12).

To sum up, self as a teacher is delineated as an effective language teacher, except in need of improving himself on how to use visual materials in class. The general pattern of Ibrahim's ratings of self as a teacher at Time 2 suggest that he identifies himself with his effective teachers and ideal teacher on most of his constructs.

Another point is that in his Time 2 grid he sees his E2 as a more effective teacher than his most effective teacher, E1. Towards the middle of his grid, we see that Ibrahim views his E1 and E3 as very close to each other at 90.8% match level.

In the last cluster, he associates two of his typical teachers, (T2 and T3) very closely at 93.4% match level. His I1, I2 and I3 remain as subordinated elements to this pair (T2 & T3). His I1 and I3 subordinate this pair at 90.3% and I2 at 84.2% match levels. In this cluster, we see most of his typical teachers and his ineffective teachers.

On the other hand, his most typical teacher T1, which had the highest link with self as teacher at Time1, remained in isolation, having the features of both his effective and typical teachers at Time 2.

Changes Observed Between Time 1 and Time 2

- **Content**

The comparison of Ibrahim's two FOCUSed grids regarding the changes in content reveals significant results. His second grid reveals that he has incorporated nine additional constructs in his repertoire between Times 1 and 2. These additional constructs are *gives importance to students' learning* (C11),

uses visual materials (C12), encourages students' taking responsibility (C13), gives importance to students' production (C14), finishes lesson with revision (C15), gives clear instructions (C16), timing is important (C17), uses her teaching voice effectively (C18), and has no immediate error correction (C19). Most of his additional constructs are related to teaching behaviours of effective teachers.

- **Structure**

The structural changes reported below are based on exchange analysis of 2 grids obtained from Ibrahim at Times 1 and 2 at 80% cut off point. After doing an exchange analysis of Ibrahim's two FOCUSED grids, we see significant changes in the structure of the constructs and elements.

4.2.6.3 The Exchange Analysis of Ibrahim at Time 1 and Time 2 Grids

The exchange analysis of Ibrahim's grids at Times 1 and 2 displays structural changes that took place in both constructs and elements (see Figure 4.18). The overall construct consensus is 80% over 80% match level and element consensus is 72.7% over 80% match level.

ibrahim2focus consensus-with ibrahim1 focus

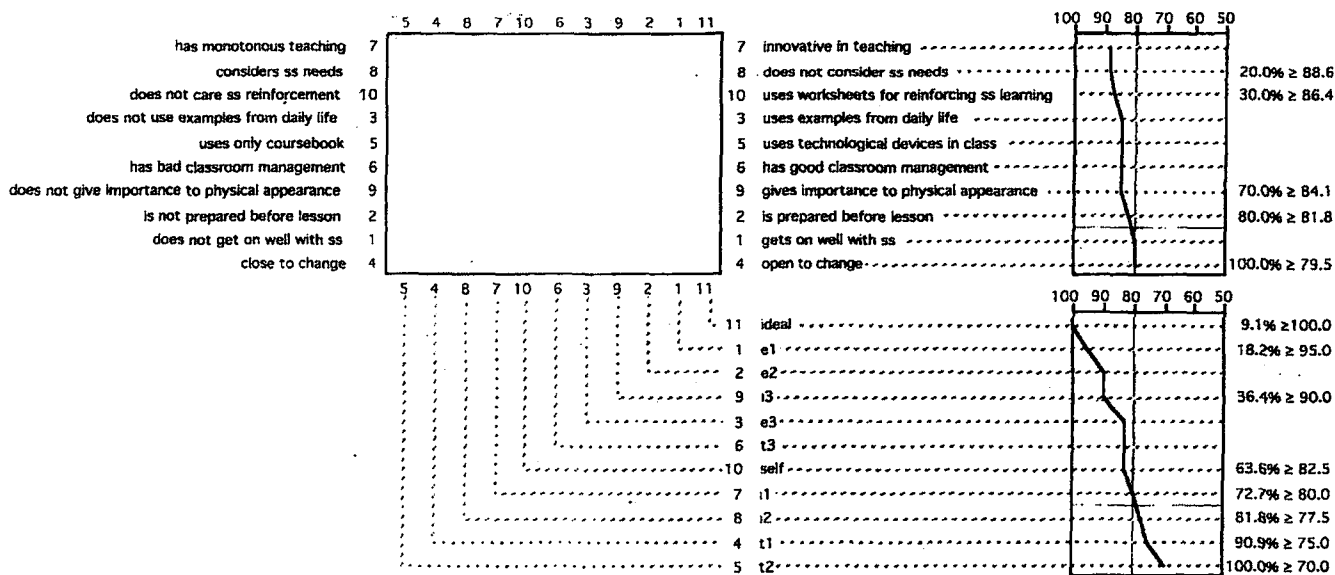


Figure 4.18 The Exchange Analysis of Ibrahim's FOCUSED 1 and FOCUSED 2

Grids

- Construct Changes**

As can be seen in Figure 4.18, between Times 1 and 2, two of his constructs showed significant changes at 80% level. These are; *gets on well with students* (C1) and *open to change* (C4). While construct 1, related to personality in Ibrahim's Time 1 grid, was an isolate and also one of his most important constructs, it was tightly clustered with constructs suggesting teaching behaviours, *uses examples from daily life* (C3), *gives clear instructions* (C16) and *uses his teaching voice effectively* (C18) at 95.5% match level. Therefore at Time 2, he seems to construe that those teachers who use examples from daily life and give clear instructions in class and use their teaching voices effectively can get on well with students. This may suggest that Ibrahim has somewhat clarified his views of effectiveness in language teaching.

The other construct that showed a structural change is *open to change* (C4) between the two time period. This construct was one of Ibrahim's top priority constructs and placed as a subordinate to *uses technological devices in class* (C5) and *uses examples from daily life* (C3) at 90.9% match level. However, at Time 2, Ibrahim construed *open to change* as a subordinate construct to *uses technological devices in class* (C5), *innovative in teaching* (C7) and *has good classroom management* (C6) at a high match level (95.5%). Ibrahim associated being open to change and using technological devices (C4 and C5) very closely to each other at Times 1 and 2 (90.9% at Time 1 and 95.5% at Time 2). He seems to think that teachers who are open to change use technological devices in classes. Carrying technology into the classroom brings innovation and good classroom management. Ibrahim's role in his school, both as a core course teacher, language laboratory and internet teacher yields consistency between what he believes and what he actually does. So the reflections of his beliefs and actions on his constructs and his additional constructs support his intentions and needs. Ibrahim seems to have gone through a process of progress between Times 1 and 2 as he perceives himself as a more effective teacher.

- **Element Changes**

Structural changes in elements are also observed in Ibrahim's exchange grid. The elements that showed significant structural changes are: I2; 77.5%, T1; 77.5%, and T2; 70%.

At Time 1, I2 formed a pair with I1 at 85% match level and subordinated by I3 and T3. However, at Time 2, it remained as a subordinate element of the

pair, T2 and T3, with I1 and I3. This means that Ibrahim started to view I2 as possessing more of the features of typical and ineffective teachers.

On the other hand, his most typical teacher (T1) formed a very tight pair with self as a teacher at 97.5% match level. However, at Time 2, T1 appears to have been placed as an isolated element. Regarding the organisation of constructs at Time 2 grid, we may speculate that at Time 1, Ibrahim perceived himself as a typical teacher, most closely related to his T1. While he associated himself as similar to his typical teacher at Time 1, he leaned towards his effective teachers and began to construe his current self between his effective teachers and ideal self. For Ibrahim, the classroom inquiry process and his observed classes as well as getting feedback after having been observed have been valuable opportunities to test (in the case of teachers that he knows) and to validate his personal theories of self as a teacher, which eventually may have led to the redefinition of his experiences and reconstruction of his theories.

The last element that showed structural change is T2 at 70% level. This element was an isolate at Time 1. However, at Time 2, it appears to have constituted a pair, so, he viewed him/her as similar to his ineffective teachers. This means that Ibrahim started to view T2 as possessing some common features of typical and ineffective teachers at Time 2.

- **Isolates**

In Ibrahim's Time 1 grid, his constructs, 1, 9 and 10 remained in isolation. However at Time 2, construct 1 formed a tight construct pair with construct 3 (at 95.5% match level) and subordinated by constructs 16 and 18 at the same

level. And construct 17 subordinated this construct cluster at 93.2% match level.

Another isolated construct 9, on the other hand, is placed in a large cluster, and formed a sub cluster with Ibrahim's most important constructs (8, 11, 13, 14 and 15) in the rank order at Time 2.

Finishing lesson with revision (C15), giving importance to students' learning (C11), encouraging students' taking responsibility (C13), considering students' needs (C8) and giving importance to students' production (C14) are viewed as similar to his construct, *gives importance to physical appearance* (C9). This shows us that Ibrahim's new ideas integrated into his belief system reorganised the whole system. This process followed a reconstruction between constructs. With the newly conceived constructs in Ibrahim's thinking system, the new system was reformulated and reorganised at Time 2.

The last isolated construct, 10, at Time 1 formed an alternative small cluster with construct 2 and 19. So, with the newly conceived construct (C19), the constructs in his old previous system of thinking (C2 and C10) came together. He started to think that being a well prepared teacher before lessons and using worksheets for reinforcing students' learning are similar to each other and those teachers who possess these characteristics do not correct students' errors immediately. This reorganisation of construct associations may be due to an attempt to integrate this new construct (C19) into his existing belief system.

- **New Constructs**

At Time 2, Ibrahim introduced nine new constructs (11, 12, 13, 14, 15, 16, 17, 18 and 19) as explained in the content part of Ibrahim's grid analysis.

He integrated them into his existing construct system. This integration took place as follows: 4 of his new constructs; 11, 13, 14 and 15 which are also Ibrahim's second, third, fourth and fifth most important constructs in the rank order at Time 2, and his foremost construct (C8) at both Times 1 and 2 was placed in a large cluster, making a sub cluster, with construct, *gives importance to physical appearance* (C9). Ibrahim, placing all his high priority constructs in a sub construct cluster, construed them tightly, linking them to each other at 95.5% match level.

3 of his new constructs, 16, 17 and 18 were placed in a sub cluster and associated very closely with constructs 1 and 2. Construct 19 formed a pair with construct 10 and was subordinated by construct 2. This small cluster was linked with his other newly conceived and accommodated construct 12 at Time 2.

- **High Priority Constructs**

There have also been significant changes in Ibrahim's rank ordering of his high priority constructs. Construct 8 was one of his high priority constructs both at Times 1 and 2. To Ibrahim, considering students' needs remains important to him. At Time 2, four of his five most important constructs (1, 2, 4 and 7) changed. This change seems interesting as the other four high priority constructs at Time 2 are from recently incorporated constructs his repertoire. So, we assume that development of Ibrahim's personal construct system may be due to the experiential cycle of learning and teaching he has been involved in. That's why his Time 2 grid revealed a change in his high priority constructs.

4.2.6.4 Ibrahim's Behavioural Change Between Time 1 and Time 2

When we look at Ibrahim's constructs that showed significant changes in his exchange analysis of Time 1 and Time 2 grids, we see that he has shown changes on 2 constructs-1 and 4 (in the order of his exchange grid).

Table 4.11 Ibrahim's Time 1 Observation

Construct Number	CONSTRUCTS	Ibrahim's rating for self as teacher	Observer's rating
C1	Gets on well with students	2	1
C2	Is prepared before lesson	2	2
C3	Uses examples from daily life	2	2
C4	Open to change	1	Not observed
C5	Uses technological devices in class	1	3
C6	Has good classroom management	2	2
C7	Innovative in teaching	2	2
C8	Considers students' needs	2	2
C9	Gives importance to physical appearance	1	1
C10	Uses worksheets for reinforcing students' learning	2	2

Table 4.12 Ibrahim's Time 2 Observation

Construct Number	CONSTRUCTS	Ibrahim's rating for self as teacher	Observer's rating
C1	Gets on well with students	1	1
C2	Is prepared before lesson	1	1
C3	Uses examples from daily life	1	1
C4	Open to change	1	Not observed
C5	Uses technological devices in class	1	3
C6	Has good classroom management	1	1

C7	Innovative in teaching	1	1
C8	Considers students' needs	1	1
C9	Gives importance to physical appearance	1	1
C10	Uses worksheets for reinforcing students' learning	1	2
C11	Gives importance to students' learning	1	1
C12	Uses visual materials	2	2
C13	Encourages students' taking responsibility	1	1
C14	Gives importance to students' production	1	1
C15	Finishes lessons with revision	1	1
C16	Gives clear instructions	1	1
C17	Timing is important	1	1
C18	Uses her teaching voice immediately	1	1
C19	Has no immediate error correction	1	2

When we look at Ibrahim's observation tables, we see that on the constructs, *gets on well with students* (C1) and *open to change* (C4) his ratings of his current self on these constructs have changed; he rated himself as 2 at Time 1 and as 1 at Time 2. However, the observer's rating of construct 1 was 1 at both Times 1 and 2. According to the observer's ratings of this construct, Ibrahim became much closer to the preferred pole at the end of the study. The construct, *gets on well with students* (C1) was his most important construct in the rank order at Time 1. In his first observed lesson, the researcher observed that the students in his class (4th grade students) love their teacher. They were always smiling and happy. The classroom climate and the feedbacks the researcher got from the school principals and other teachers of English supported this observation. Students in his class were always very active and volunteered for activities. English was used as a medium in class throughout

the 2-hour observation. The importance of a good relationship with students was explained by Ibrahim as follows:

Extract 33

I believe, with that age of students [primary school students] teachers may have difficulties in teaching language. Since I know my students' needs and interests, (they love playing games) I try to play with them. In order to make them feel that we play a real game in the classroom, this game has some certain rules, such as; respecting each other's responses, listening carefully and speaking English, (Turkish is not allowed, except in cases of complicated situations for that level and age group. There is, now, no need to control them but to channel their energy. So, I can easily communicate with them by playing games. Besides, I love that age group and playing with them.

Ibrahim, on his construct, *getting on well with students*, started to view himself more positively at the end of the study. This enabled him to choose from a range of research approaches and interests. This concern gave him the freedom of deciding what to search for and how to conduct it.

The last construct that showed significant change *open to change* (C4) was not an observable construct in his classroom. The focus of his project has been related to his interests and concerns; he determined his research area. This process gave him the chance of reflecting on his own experience and contributed to his understanding of school and classroom teaching conditions for effective language teaching.

Eraut (2000), on this issue, states that

Teachers need to be creative and imaginative in their work, they need to be able to use 'intuitive, rational and reflective thinking' as well as having the 'confidence to take risks in learning and a sense of cognitive self-efficacy in a range of learning contexts'. (p. 267)

So, we may conclude that Ibrahim has developed professionally as a result of the process he has experienced. And we see that there has been consistency between his conceptual and behavioural changes throughout the teacher development program.



4.2.7 ŞİRVAN

She has been teaching English for three years. She graduated from the University of Mersin. Her research interest is “How can I use different methods and materials effectively in my classes in order to teach English beter” ?

4.2.7.1 The Content and Structure of Şirvan’s Personal Theories

Regarding Effective Language Teaching at the Beginning of the Study

- **Construct Links**

At Time 1, Şirvan’s grid data is comprised 12 constructs and 11 elements. The FOCUS printout illustrated in Figure 4.19 displays the construct and element trees drawn at 80% cut off point.

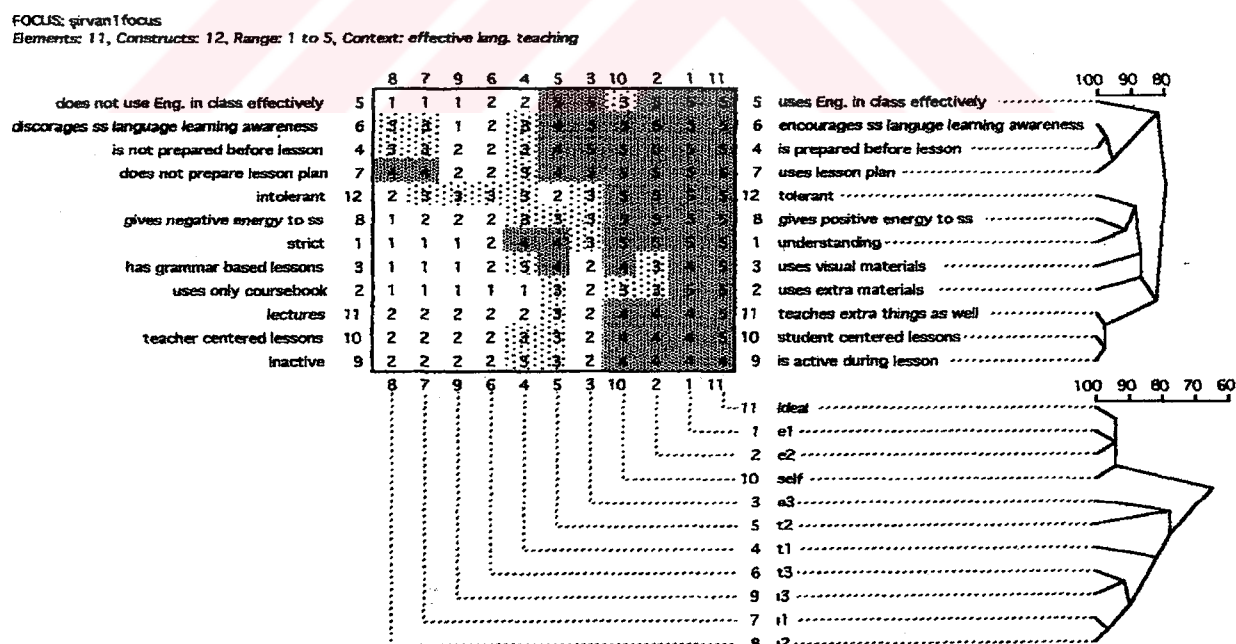


Figure 4.19 Şirvan’s FOCUSED Grid at Time 1

The FOCUS analysis of Şirvan's grid produced 2 main construct clusters; one consists of two subclusters comprising 3 constructs each and 2 isolates in between. The other cluster consists of 3 tightly linked constructs and one isolate.

If we look at the first construct cluster at the top of the grid, we see that the constructs *encourages students' language learning awareness* (C6), and *is prepared before lesson* (C4) are associated at 97.7% match level, forming a pair. Surprisingly, these two constructs (C4 and C6) are two of her high priority constructs in the rank order at Time 1. The construct; *uses lesson plan* (C7) subordinates this pair at 95.5% match level.

Şirvan seems to believe that teachers who are always prepared for their classes encourage students' language learning awareness. To Şirvan, these teachers who are well prepared and know how to increase students' awareness in language learning use lesson plan in their teaching.

At a slightly lower level (81.8%) isolate construct, *uses English in class effectively*, (C5) is seen as a construct somewhat related with the rest of the constructs in this cluster. To sum up, Şirvan construes that teachers who are well prepared and use lesson plan promote language learning awareness of their students, and these teachers use English in class effectively.

Towards the middle of Şirvan's Time 1 grid, in the largest cluster, constructs, *gives positive energy to students* (C8) and *understanding* (C1) form a pair at 90.9% match level. *Tolerant* (C12) subordinates this pair at 88.6% match level. Şirvan seems to construe a direct link between giving positive energy to students and being understanding. These features are construed, at a slightly lower level, with being tolerant. Her second and third most important

constructs (C3 and C2), *uses visual materials* and *uses extra materials*, her remaining isolates, have close links to each other at 86.4% match level. On the other hand, using visual and extra materials, both being among her most important constructs in the rank order, are interrelated within themselves. That is, Şirvan views them as features of effective language teachers. However, she cannot associate them closely with the other features yet.

In the cluster at the bottom of Time 1 grid, the constructs, *student centered lessons* (C10) and *is active during lesson* (C9) forms a pair, and *teaches extra things as well* (C11) subordinates the pair at the highest match level (97.7%). In Şirvan's grid, construct 10 is also cited as one of her five most important constructs. Şirvan seems to construe a direct link between student centered lessons and teaching extra things in class in addition to being active in class. Seeing student centered lessons as one of the most important features of effective language classes, both teaching extra materials besides course books and having an active classroom atmosphere are seen as two components of student centered lessons. Şirvan seems to have associated these three constructs at the highest match level and this reveals that these 3 constructs (C9, C10 and C11) have higher links than the rest of the constructs in her grid.

- **Element Links**

In the element set, we see two main clusters. In the first cluster, E1 and E2, forming a pair, are viewed as similar at 93.8% match level. At the same level, self as a teacher and ideal self are construed similarly. So, she views her current self close to her effective and ideal teachers at the beginning of the

program. In the first cluster, we see a clearer pattern than the second element cluster as effective, ideal self are included within the same cluster.

In the second cluster, on the other hand, we do not see as clear cut pattern as her E3. All her typical and ineffective teachers are included within the same cluster. Hence, we suspect that Şirvan has not got a clear idea of the features of typical and ineffective teachers yet. In this element cluster, E3 is viewed as similar to T2 at 77.1% match level. At a much higher level, T3 is viewed as similar to her I3 at 91.7% match level. At the highest level of match, I1 is viewed as similar to I2 (at 93.8% match level). T1, as an isolate, seems to have the features of both her E3 & T2 and T3 & I3 pairs, but the closest elements to T1 are T3 (at 81.2% match level) and T2 (at 77.1% match level).

4.2.7.2 The Content and Structure of Şirvan's Personal Theories Regarding Effective Language Teaching at the End of the Study

- **Construct Links**

The FOCUS analysis of Şirvan's Time 2 grid consists of 22 constructs and 11 elements. Her FOCUSed grid shown in figure 4.20 demonstrates the construct and element trees drawn at 80% cut off point.

The FOCUS analysis of Şirvan's Time 2 grid produced one big tight cluster consisting of two main clusters, a small and a larger one. In the first main cluster, we see a tight pair with 3 other tightly linked subordinated constructs; two of which are rather tight and one rather loosely linked with the pair. 3 other isolated constructs associate closely with the constructs in this cluster.

FOCUS: şirvan2focus..
Elements: 11, Constructs: 22, Range: 1 to 5, Context: effective lang. teaching

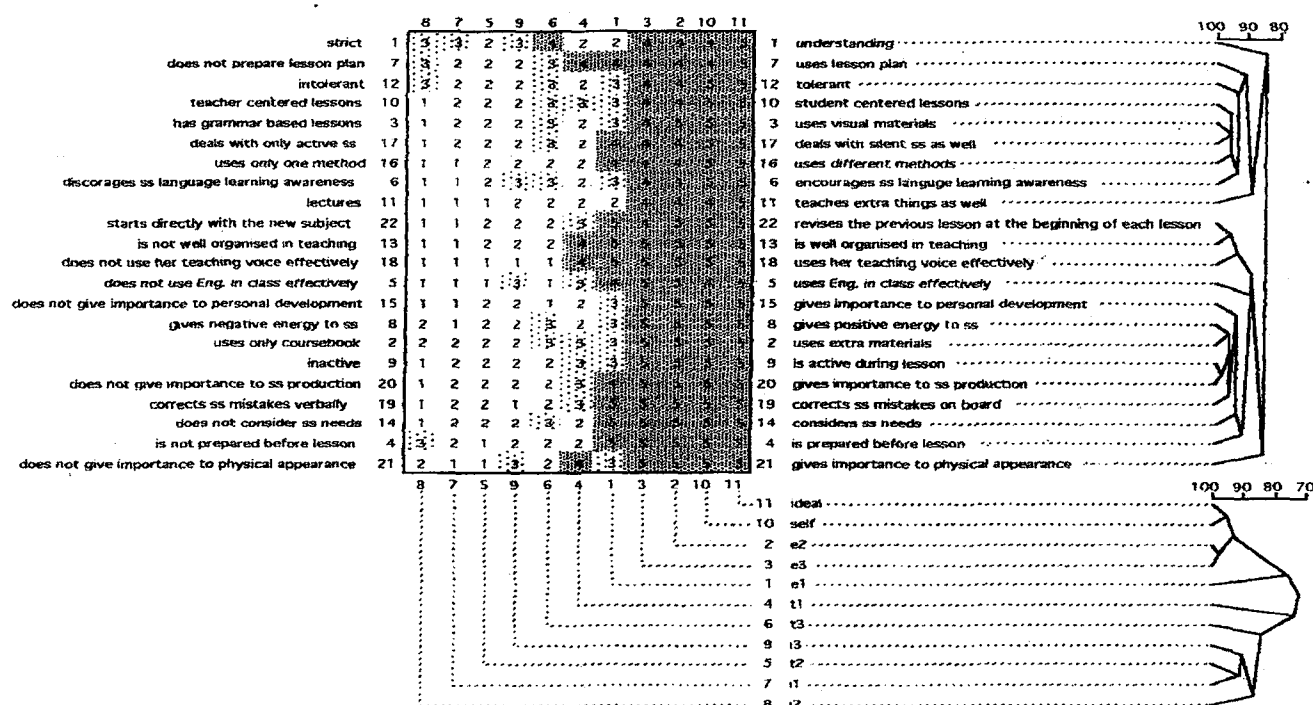


Figure 4.20 Şirvan's FOCUSED Grid at Time 2

In the second main cluster, we see a big and a small sub cluster. There appears to be a small sub cluster with 3 constructs; a tight pair and a subordinate. In the second sub cluster, two rather tight pairs are subordinated by two other subordinated constructs and 3 other isolated constructs.

In Şirvan's first main cluster, we see that she forms a pair with *uses visual materials* (C3), her first top priority construct and *deals with silent students as well* (C17) very highly at 95.5 % match level. At the same level, she construes *student centered lessons* (C10) as similar to this pair. Şirvan indicates that in student centered lessons, teachers are seen as those who use visual materials and can deal with silent students as well. Within this main cluster, *uses different methods* (C16) and *encourages students' language learning awareness* (C6) are construed very similarly with the above constructs as subordinated constructs at 93.2% match level. That is, Şirvan seems to

believe that using visual materials and different methods and dealing with silent students as well are the components of student centered lessons. And in these classes, students' language learning awareness is encouraged. Three other constructs within this same cluster, *uses lesson plan* (C7), *tolerant* (C12) and *teaches extra things as well* (C11) remain as isolated constructs. Constructs 7 and 12 are construed very highly at 90.9% match level and Şirvan's second top priority construct, *teaches extra things as well*, (C11) is associated with the constructs in this cluster at a slightly lower match level (80% with construct 7 and 84% with construct 12). Thus, we may infer that to Şirvan, using a lesson plan, teaching extra things in class and being a tolerant teacher are important features of effective language teachers. It is noteworthy to mention that Şirvan places her 3 most important constructs within this main cluster. *Uses extra materials* (C3), *teaches extra things as well* (C11) and *encourages students' language learning awareness* (C6) which are her first, second and third most important constructs are seen as important features of effective language teachers and associated with the other constructs closely in this cluster.

On the other hand, the construct, *understanding* (C1) is isolated, having some links with the constructs in the first main cluster. We may suspect that Şirvan believes that teachers who are strict and intolerant do not prepare lesson plan; they teach only grammar and use only one method (most probably grammar translation method). Those classes are teacher-led and in those classes silent students are ignored and students' language learning awareness is discouraged.

The second main cluster towards the middle of the grid consists of 12 constructs, (22, 13, 18, 5, 15, 8, 2, 9, 20, 19, 14, and 4) all linked to each other

at 88.6%. In this second and the larger main cluster, there appears a small sub cluster with 3 constructs; a pair and a subordinated construct. We see that Şirvan construes *revises the previous lesson at the beginning of each lesson* (C22) and *well organised in teaching* (C13) as a tight pair (matched at 95.5% level). At a slightly lower level (93.2%), *uses her teaching voice effectively* (C18) is construed very similarly with this pair, forming a sub cluster. From this sub cluster consisting of 3 constructs, Şirvan appears to construe that being well organised as an effective language teacher, which is one of her most important constructs, means that those teachers revise the previous lesson at the beginning of each lesson and use their teaching voice effectively. Within this main cluster, 6 constructs (15, 8, 2, 9, 20 and 19) are tightly linked with each other.

When we look at the second sub cluster, two tight constructs, *gives positive energy to the students* (C8) and *uses extra materials* (C2) are associated closely at 95.5% match level. In fact, *uses extra materials* (C2) is one of Şirvan's top priority constructs. At the highest level *is active during lesson* (C9) and *gives importance to students' production* (C20) form a tight pair at 97.7% match level. These two pairs (8, 2 and 9, 20) are subordinated by *gives importance to personal development* (C15) and *corrects students' mistakes on board* (C19). 3 other isolated constructs; *uses English in class effectively* (C5), *considers students' needs* (C14) and *is prepared before lesson* (C4) are seen as isolated constructs; close to the constructs in this cluster. The match level of these constructs is 90.9%. That is, she seems to believe that teachers who consider students' needs are those who are well prepared before lessons and speak English in class effectively. She sees these 3 constructs

close to the constructs in this sub cluster but cannot associate them with the other constructs directly. This may mean that she needs some time. Giving importance to physical appearance (C21) is another isolated construct closely associated with the constructs in both clusters. Yet, she cannot associate physical appearance directly with any of her constructs but construes this as an important characteristic of an effective language teacher.

Drawing on the above associations, we may assume that Şirvan thinks that using extra materials in class gives positive energy to students. And teachers who give importance to students' production are always active in class. Seeing that *uses extra materials in class* as one of the most important features of effective language teachers, Şirvan believes that teachers who use extra materials in class are those who give positive energy to students and give importance to students' production and thus, they are active during their lessons. She also seems to construe that these teachers give importance to their personal development and give importance to correction of their students' mistakes on board.

- **Element Links**

In the element links, we see that Şirvan's FOCUSed grid produced 2 main element clusters and 3 isolates (see Figure 4.20). At Time 2, we do not see a clear cut pattern in Şirvan's element clusters. Regarding the structuring of her elements, we may speculate that she has not established a clear picture in her mind about the characteristics of typical and ineffective teachers. The level of similarity between her effective teachers, ideal self as teacher and current self is higher than that of typical and ineffective teachers. Drawing on

the associations made, we may suggest that Şirvan has got a much clearer perception regarding the distinctive features that differentiate the effective teacher group from the typical and ineffective teacher groups. And she perceives her current self as effective as her ideal and effective teachers. The following quotation taken from the follow up interview reveals why she sees herself as effective as her ideal teacher.

Extract 34

I started teaching language by imitating my ideal teacher from my university years. She used to give me positive energy and she was always active and lively in class. I tried to become like her. I believe I have been trying to teach the same way as she taught. But I must admit that I have been learning how to teach while teaching.

Within the first main cluster, we see that Şirvan, places current self and ideal self in a pair. Self as a teacher now is construed similarly at 95.5% match level. That is, Şirvan perceives herself to be very close to her ideal self as teacher. This association may suggest that she perceives a very limited need for change. Because she deems herself as effective as other teachers she knows, which may indicate either over-confidence or lack of awareness of her capacity. When we analyse her ratings to identify how she construes self as teacher, we see that in 4 out of 22 constructs, she was close to the preferred construct pole, as with her ideal self as teacher. The four constructs she was undecided about were: *understanding* (C1), *uses lesson plan* (C7), *teaches extra things as well* (C4) and *uses English in class effectively*. Her following interview account is quite revealing in terms of how and why she construes self undecided on these 4 constructs.

Extract 35

I try not to be a strict teacher and try to use lesson plan. However, in my school, as in many state schools in Turkey, we deal with large size classes. In these classes, it is really hard for language teachers to keep students quiet. I try to be an understanding teacher. They may be easily spoiled. Using English, and presenting everything in English at the same time is nearly impossible. I can use limited English and I try to teach something extra, beyond the curriculum. But the students' approach and their level of English are barriers for me. I am required to prepare lesson plans. I must confess that although having lesson plan, I sometimes ignore it and try to teach them extra materials to reinforce the students' learning. That, of course, takes time and we have got limited time for English lessons in state schools.

In the same cluster, she construes her E2 and E3, bearing similar features, at 97.7% match level. In the second main cluster, her T2 and I1 are seen close to each other at 90.9% match level. At a slightly lower level, her I3 is seen close to this element pair at 89.8% match level. Another ineffective teacher, I2 is viewed as close to her I1 at 86.4% match level. Within this cluster all of her ineffective teachers and her second typical teacher (T2) form a group. But we do not see separate groupings of teachers (from the most to the least).

However, between her first and second clusters, we see 3 isolated elements, E1, T1 and T3. In the first grid, T1 was the only isolated element. Thus, we may assume that she still cannot discriminate between the features of typical and ineffective teachers appropriately in her mind at Time 2.

On the other hand, she construes herself as effective as the teachers rated as effective and ideal self.

Changes Observed between Times 1 and 2

- **Content**

Changes in the content of Şirvan's two grids were quite noteworthy. She has incorporated 10 additional constructs in her repertoire between Times 1 and 2. These are: *well organised in teaching* (C13), *considers students' needs* (C14), *gives importance to personal development* (C15), *uses different methods* (C16), *deals with silent students as well* (C17), *uses her teaching voice effectively* (C18), *corrects students' mistakes on board* (C19), *gives importance to students' production* (C20), *physical appearance is important* (C21), and *revises the previous lesson at the beginning of each lesson* (C21).

Another matter of interest is the fact that Şirvan has cited construct 13 as one of her most important constructs at Time 2. There may be many reasons behind adding that many constructs in her repertoire between Times 1 and 2. When we look at her new constructs, except construct 15, her classroom inquiry process, observed lessons, and feedback given after each observation seem to have expanded Şirvan's repertoire of personal constructs on effectiveness in language teaching. Construct 15, on the other hand, may be interpreted as new terminology and may have been gained during input sessions.

- **Structure**

The structural changes reported below are based on an exchange analysis of 2 grids obtained from Şirvan at Times 1 and 2 at 80% cut off point.

After the exchange analysis of Şirvan's Times 1 and 2 grid data, we see significant changes in the structure of the constructs and elements.

4.2.7.3 The Exchange Analysis of Şirvan at Times 1 and 2 Grids

In the exchange analysis of Şirvan's first and second grids, we see that the construct consensus between the two grids is 33.3%, and the element consensus is 36.4% over 80% match level (see Figure 4.21).

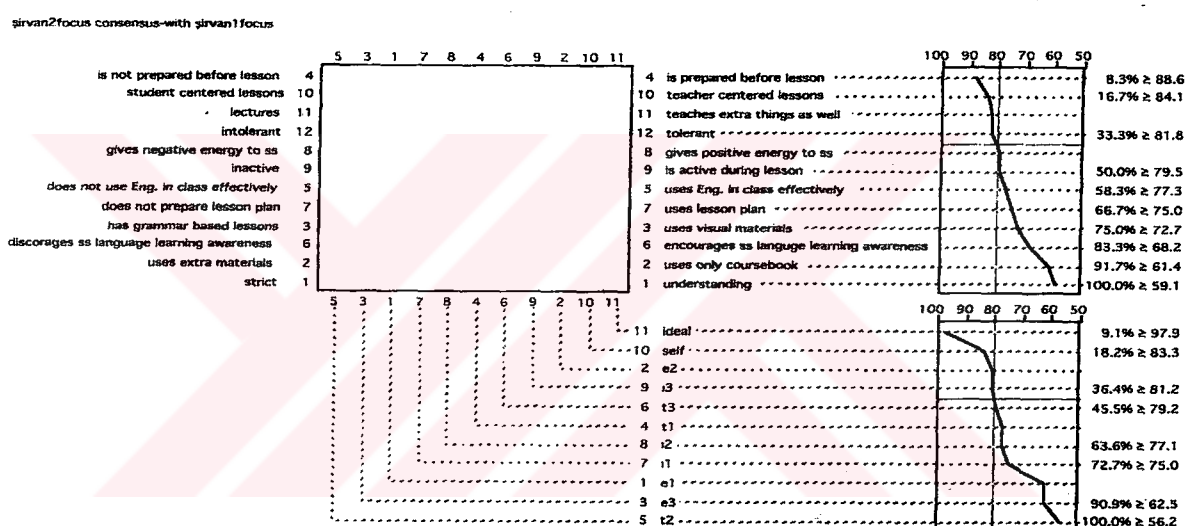


Figure 4.21 The Exchange Analysis of Şirvan's FOCUSED 1 and FOCUSED 2 Grids

- Construct Changes**

The structural changes occurred in the constructs were: (C8) gives positive energy to students at 79.5%, (C9) is active during lesson at 79.5%, (C5) uses English in class effectively at 77.3%, (C7) uses lesson plan at 75%, (C3) uses visual materials, at 72.7%, (C6) encourages students' language

learning awareness at 68.2%, (C2) *uses extra materials* at 61.4%, and (C1) *understanding* at 59.1% levels.

Examining the constructs to identify the pattern of structural changes they had gone through, we can establish the following associations. At Time 1, while the construct *gives positive energy to students* (C8) was construed similarly with construct, *understanding*, (C1) at 90.9% match level, we see that at Time 2, it is tightly associated with one of her high priority constructs, *uses extra materials* (C2). In fact, constructs 8 and 1, forming a tight pair, at Time 1 changed their places in clusters at Time 2. And construct 8, without being influenced by the new arrivals, associated with the construct, *uses extra materials* which was an isolate at Time 1 and her second most important construct at Time 1, but is still one of her most important constructs at Time 2. That is, Şirvan has changed her conception of giving positive energy to students (as it was related to being understanding at Time 1). Later, it became related to using extra materials. To Şirvan now, teachers who use extra materials give positive energy to their students.

Construct 9, *is active during lesson*, is another construct that showed significant change between Times 1 and 2. This construct was associated very highly with *student centered lessons* (C10) and *teaches extra things as well* (C11) at 97.7% match level. Constructs 9, 10 and 11 were associated at the highest match level and formed a tight sub cluster. However at Time 2, construct 9 formed a tight pair with a newly conceived construct, *gives importance to students production* (C20) at the highest level (97.7%) at Time 2. While it was placed in a sub cluster with 3 constructs, this construct was placed in the larger cluster, consisting of 13 constructs at Time 2. In the larger cluster,

it is noticeable that construct 9 was placed as one of two pairs of a sub cluster. The other significant point related to construct 9 is the fact that it does not only exist in the larger cluster but also this cluster mostly comprises newly accommodated constructs (8 out of 13).

When we examine the pattern of changes in (C5) *uses English in class effectively*, we see that at Time 1 grid, it was an isolate (see Figure 4.19), and it was placed in the smaller cluster. However, at Time 2, construct 5 formed a sub cluster with constructs 14 and 4 at a very high match level (90.9%). To Şirvan, using English in class effectively is one of the features of effective language teaching. Şirvan had not found a direct relationship between this construct and the rest of her constructs at Time 1. However, at Time 2, she construed that using English in class effectively has close links with considering students' needs and being prepared before lesson. Therefore, we may assume that Şirvan went through an integration process in light of the experiences.

In her first grid, *uses lesson plan* (C7) was a subordinate construct of the pair (constructs 4 and 6), which are two of her most important constructs and was associated with this pair at 95.5% match level. At Time 2, construct 7 remained as a subordinate construct with constructs 11 and 12. It was subordinated to a large sub cluster (3, 17, 16 and 6). This construct was closely associated with construct 12 (at 90.9% match level). What is noteworthy here is that at Time 2 construct 7 was placed in a relatively smaller construct cluster in which 3 of her most important constructs were placed.

The next construct that shows structural change is *uses visual materials* (C3). It was an isolated construct at Time 1. Later, it was construed closely with *uses extra materials* (C2), which was another isolate and one of her high

priority constructs, at 86.4% match level at Time 1. However, this construct became her foremost construct in the rank order at Time 2 and formed a tight pair with *deals with silent students as well* (C17) at 95.5% match level. This construct was placed in the largest sub cluster at Time 2 grid.

Construct 6, *encourages students' language learning awareness* was construed very closely with *is prepared before lesson* (C4) at 97.7% match level at Time 1. However at Time 2, this construct, remaining one of her most important constructs in the rank order, was placed as a subordinate construct and linked highly with *uses different methods* (C16) at 93.2% match level.

Uses lesson plan (C2) is her other construct that showed significant structural change. Being one of her most important constructs both at Times 1 and 2, Şirvan construed this construct as an isolate at Time 1. However, at Time 2, she associated *uses lesson plan* very highly with *gives positive energy to students* at 95.5% match level. The link of using extra material with other constructs is closer at Time 2. So, we may assume that at Time 2, she has much clearer views on this construct related to the features of effective language teaching.

The last construct that showed significant change is *understanding* (C1). At Time 1, this construct was associated with *gives positive energy to students* (C8) and subordinated by *tolerant* (C12) very closely. However, at Time 2, construct 1 became an isolate. It has a direct link with constructs (7, 12, 10, 3, 17, 16, 6 and 11) in the first cluster at Time 2. She does not see a direct link with this and any of her other constructs but does see this as one of the most important characteristics of an effective language teacher.

- **Element Changes**

Şirvan's elements that showed structural changes (in the order of level of difference from the least to the most) are: T3; 79.2%, T1; 77.1%, T2; 77.1%, I1; 75%, E1; 62.5%, E3; 62.5%, and T2; 56.2% at 80% cut off point. As in her explanation, her personal experience played a role on this change. Figure 4.21 reveals that Şirvan has been in the process of reorganising 7 of her elements in her grids.

When we analyse the element clusterings done at Times 1 and 2, we see that some elements did not show a clear cut pattern at both Times. At Time 1 Şirvan's E1, E2, ideal self as teacher and her current self formed a group. Her typical and ineffective teachers have not been neatly grouped (from the most to the least effective order) and the levels of similarity were not close.

In the case of her typical teachers (T1, T2 and T3) which showed significant change between Times 1 and 2, Şirvan viewed her T2 close to her E3, her T3 close to her I3 and I1 close to her I2 at Time 1. However, at Time 2, her I3, T2, I1 and I2 were placed in a cluster. And her T1 and T3 remained isolated. T1, at Time 1, was seen as an isolated element, having the characteristics of her E3, typical teachers (T2 and T3) and ineffective teachers. However, at Time 2, this element was seen as a teacher who has the characteristics of her effective and typical teachers.

T3 formed a pair with I3 at Time 1. It became isolated, having the characteristics of her typical and ineffective teachers at Time 2. I1 and I2 formed a tight pair at Time 1 at 95.8% match level. However, at Time 2, these two elements were placed in a sub cluster with her T2 and I3.

T2, at the beginning of the study was seen close to her E3 (at 77.1% level). However, at the end of the study, this element was placed in a sub cluster with her I3, I1 and I2 and formed a pair with I1 (at 90.9% match level).

The other elements that showed significant changes between Times 1 and 2 are E1 and E3. E1, at Time 1, formed a close pair with E2 at 93.8% match level. Current self and ideal self as teachers subordinated this pair. E3, at Time 1, formed a loose pair with T2 (at 77.1% match level). However, at Time 2, E1 remained isolated, having the characteristics of both her effective, self and ideal self as teachers and her typical teachers. E3, on the other hand, was viewed as a loose pair with T2; while this element was seen as a close pair with her E2, having the characteristics of her current and ideal self as teachers, it formed a tight sub cluster (all linked at 93.2% match level).

The most drastic changes are seen in her E1, E3 and T2 teachers. Şirvan's concern appears to be on the distinctive features of her effective, typical and ineffective teachers. By means of the experiences gained throughout the teacher development program, she seems to have gained more insight into the kinds of the teachers she knows. Thus, her perception of effective, typical and ideal teachers has changed conceptually. She has gone through a process in which existing ideas are progressively reorganised as a system (Sendan & Roberts, 1998).

- **Isolates**

In Şirvan's Time 1 grid, construct 5 was in an isolated position, and was placed in the smaller main cluster. However, at Time 2 grid, this construct

joined into the larger main cluster. The closest match level of this construct was with constructs 15 and 18 (at 88.6%).

Constructs 2 and 3, two of most important constructs at both Times 1 and 2, were isolates at Time 1. However, construct 2 joined to the larger cluster and formed a pair with one of her Time 1 constructs, 8, at 95.5% match level. Construct 3, similarly, joined to a cluster and formed another pair at Time 2 with construct 17 at 95.5% match level.

This reorganisation of Şirvan's isolated construct associations may be due to awareness of the relationship of her constructs in her belief system.

- **New Constructs**

She has accommodated 10 new constructs, which are mentioned in the content part of Şirvan's change between Times 1 and 2. At Time 2, Şirvan's grid produced 2 main clusters. Only 2 of her new constructs (C16 and 17) were integrated into her first main cluster. The rest of her new constructs (22, 13, 18, 15, 20, 19, 14 and 21) were placed in her second main cluster.

- **High Priority Constructs**

Constructs 2, 3 and 6 have consistently been Şirvan's high priority constructs between Times 1 and 2. At Time 1, C2, *uses extra materials*, and C3, *uses visual materials* were isolated constructs and were placed between two sub clusters in the larger cluster. At Time 2, C2 formed a tight pair with C8 which is *gives positive energy to students* at 95.5% match level.

Another high priority construct, C3, was in an isolated position in Şirvan's Time 1 grid. At Time 2, it joined in a cluster and formed a tight pair with a new construct (C17) at 95.5% level.

Construct 6 has been consistently one of the high priority constructs in Şirvan's Time 1 and Time 2 grids. At Time 1, it was part of a pair with construct 4, another high priority construct at Time 1, and was subordinated by construct 7.

4.2.7.4 Şirvan's Behavioural Change Between Times 1 and 2

When we look at Şirvan's constructs that showed significant changes in her exchange analysis of Time 1 and Time 2 grids, we see that Şirvan has shown changes on 8 of her constructs, 8, 9, 5, 7, 3, 6, 2 and 1 (in the order of her exchange grid).

Table 4.13 Şirvan's Time 1 Observation

Construct Number	CONSTRUCTS	Şirvan's rating for self as teacher	Observer's rating
C1	Understanding	1	2
C2	Uses extra materials	3	2
C3	Uses visual materials	2	3
C4	Is prepared before lesson	1	2
C5	Uses English in class effectively	3	3
C6	Encourages students' language learning awareness	1	2
C7	Uses lesson plan	1	2
C8	Gives positive energy to students	1	2
C9	Is active during lesson	2	1
C10	Student centered lessons	2	2
C11	Teaches extra things as well	2	3

C12	Tolerant	1	1
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Table 4.14 Şirvan's Time 2 Observation

Construct Number	CONSTRUCTS	Şirvan's rating for self as teacher	Observer's rating
C1	Understanding	2	2
C2	Uses extra materials	1	1
C3	Uses visual materials	1	1
C4	Is prepared before lesson	1	1
C5	Uses English in class effectively	2	2
C6	Encourages students' language learning awareness	1	1
C7	Uses lesson plan	2	2
C8	Gives positive energy to students	1	1
C9	Is active during lesson	1	1
C10	Student centered lessons	1	2
C11	Teaches extra things as well	2	1
C12	Tolerant	1	1
C13	Well organised in teaching	1	1
C14	Considers students' needs	1	1
C15	Gives importance to personal development	1	Not observed
C16	Uses different methods	1	1
C17	Deals with silent students as well	1	2
C18	Uses her teaching voice effectively	1	1
C19	Corrects students' mistakes on board	1	1
C20	Gives importance to students' production	1	1
C21	Physical appearance is important	1	1
C22	Revises the previous lesson at the beginning of each lesson	1	1

When we look at the Şirvan's observation tables, we notice that on the constructs 2, 3 and 5 (*uses extra materials*, *uses visual materials*, and *uses English in class effectively*), Şirvan's and the observer's ratings continuously went towards the preferred pole. In her first observed class, Şirvan used cards for practicing "can" as a modal. The cards were produced by Şirvan. Students had the chance of seeing visual figures on cards. They became more aware of what else they could do. They had the chance of practising English through visual and extra materials. It was not only a grammar lesson but also speaking, writing sentences, correcting their own mistakes, taking roles, dialogues were encouraged during 2 class hour teaching. Students' attitudes and behaviours were more positive and they all, even the passive and shy students, participated. Şirvan spoke mostly English with the students during the 2 hours. Turkish was used only in cases of misunderstanding and repeated mistakes of the students. As soon as the students' understanding was checked and agreed upon it, she continued speaking in English. And for 5th grade students, they were quite good at communicating in English.

The other constructs that showed significant structural changes in her exchange grid were; *understanding* (C1) and *uses lesson plan* (C7). On the construct 1, at Time 1, Şirvan rated her current self as 1 and the observer as 2. However, at Time 2, her rating and the observer's rating were 2. Şirvan, being an understanding teacher and using lesson plan, was close to the preferred pole. She had positive attitudes towards her students. However, she was not a positive teacher in the case of encountering passive students who did not participate in the lesson. She tried to understand the students but it was evident from her facial expressions that she was not happy with the silence of

passive students. She was also not happy with any wrong answers she received from her students. Ben-Peretz (2001) states that “teacher’s plans predict and prescribe teaching in a certain sense, but students’ unpredictable responses create an ever-changing context for teaching that is not completely predictable or ‘prescribe-able” (p. 51).

During feedback on her observations, she stated that

Extract 36

I try to be an understanding teacher and be positive towards my students. Naturally, I expect them to be active in class. Whenever I see passive students, I try to draw their attention and want them to follow the lesson. But, mostly, because of their not having enough self confidence, I experience some negative things with my shy students.

On the construct, *uses lesson plan* (C7), during the program, she brought this issue to the sessions. This was discussed in the sessions and later in informal settings. The question in her mind was “Why do we have to follow the national curriculum, and how I can get out of doing this.” She explained her question and distress as follows:

Extract 37

We are given a national curriculum and expected to follow this. But I believe that this national syllabus should be a framework and schools should be given the freedom to prepare their own curriculum and syllabus. In our case, we have to follow this curriculum by ignoring the natural culture of the district, the school and the students, and even the families. I, personally, believe this but I have to prepare lesson plans according to national curriculum to satisfy the inspectors of the Ministry

of National Education. Here, I have got a dilemma-whether to prepare my lessons according to national standards or to prepare my own school curriculum by taking into consideration my students and the school's expectations.

In practice, the observer noticed that she has been using the national syllabus but practicing her own plan. She has been arranging her own lesson plan according to the different levels of students to increase the amount of students' interest in language learning within a weekly 4-hour English lessons. She believes that language teaching needs more time. As in Şirvan's case, Ben-Peretz (2001, p. 48) reminds us the external demands and asserts that "teachers are torn between varied and sometimes conflicting external demands, on one hand, and their own internal tensions and needs, on the other hand."

Other constructs that showed significant changes were *encourages students' language learning awareness* (C6) and *gives positive energy to students* (C8). Şirvan rated her current self as 1 at both times and the observer rated these constructs as 2 at Time 1 and as 1 at Time 2. According to observations, she has become closer to the preferred poles between Times 1 and 2. That is, Şirvan has gained more insights into these constructs, evaluated her teaching, and showed marked differences in her thinking and acting. Encouraging students' language learning awareness was one of Şirvan's top priority constructs at Time 2. She stated the rationale behind this idea as follows:

Extract 38

Students enter classrooms for language learning. But they do not know what they will learn and how. Because they have not been told what and

why they learn English. Therefore, I personally, make them aware of the importance of language learning. I do not only teach what they will learn in a particular lesson but also where and when they will be able to use the patterns and the specific knowledge. That's why, for example, I use translation from English to Turkish or Turkish to English. So, students understand when to use what. This increases their concentration and understanding. They start to think how people express their feelings specifically. That way makes their understanding more comprehensible and meaningful.

From a professional development point of view, Şirvan has attempted to make her students more aware of language learning and spent time and effort direct her students' behaviour and learning. She has continuously tested her beliefs during the process. She has tried to obtain positive feedback both from her students and the headmaster of the school. These can be easily seen in her action research project. She has dealt personally with uncovering her self-perceptions which enable her to articulate and question her personal construct system (Christie & Menmuir, 1997, p. 206).

The last construct that showed changes in her exchange grid is *is active during lesson* (C9). Seeing her current self as 2 at Time 1, she started to view herself on the positive pole (along with the observer) at Time 2. In her interview, she stated that

Extract 39

Being an active teacher in class is one of my strongest held beliefs for effective language teaching. I remember my years as a student; the most admirable teachers for me were those who were always active and

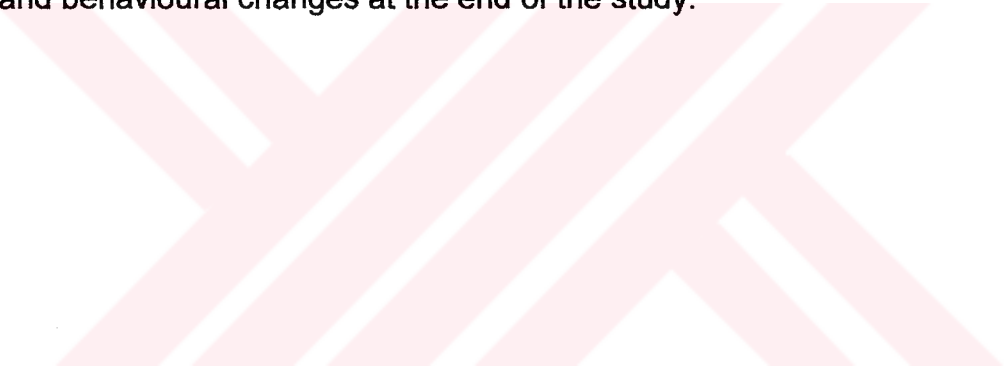
lively in class. They were conducting the lessons like magicians.

Nothing used to distract me or break concentration during those lessons.

Now, I try to be an active teacher in my classes, like an orchestra conductor.

Şirvan's idea rooted in professional practice rests upon special knowledge—much of which was experientially gained and often held tacit. It became then the task of professional education somehow to uncover this knowledge or find ways of passing it on from experienced professionals to those entering the profession.

We may conclude that there is a consistency between her conceptual and behavioural changes at the end of the study.



4.3 Commonality of Construing Between Teachers

In this section, we will discuss the Sociogrid Analysis of repertory grid data in order to see the commonality of constructs between the teachers at the beginning (Time 1) and at the end (Time 2) of the teacher development program. We will elaborate on the construct correspondence of the teachers.

4.3.1 The Socio Analysis of Teachers' Grids at Time 1

The Socionet analysis of teachers' grids at Time 1 reveals both one-way and two-way construct correspondence. The 7 teachers have 37 significant socio links with each other (see Figure 4.22) at Time 1. This represents a high number of links in our grid data.

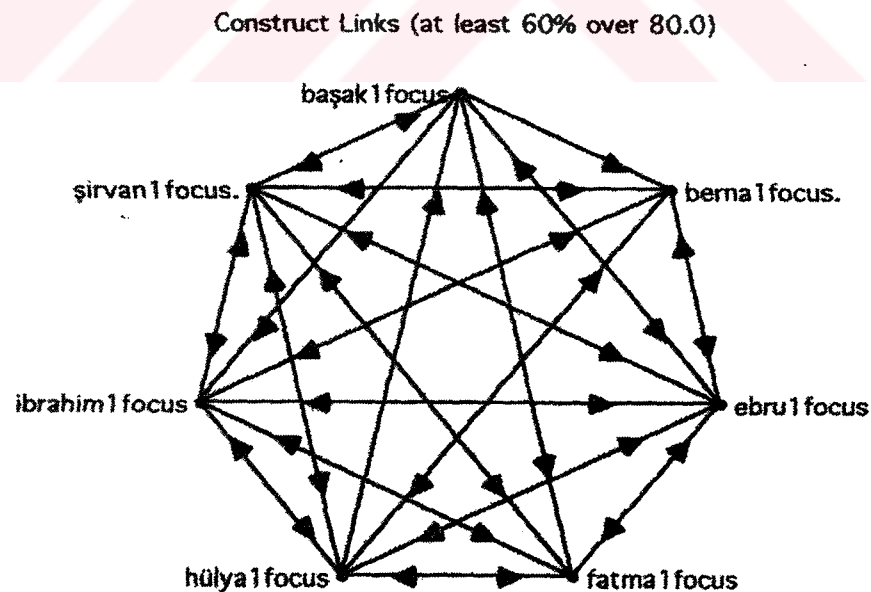


Figure 4.22 The Socionet Analysis of Teachers' FOCUSED Grids at Time 1

The arrows between the teachers indicate the direction of links. As seen in figure 4.22, single arrows from Başak to Berna and from Başak to Ibrahim indicate that Başak has construct correspondences from Berna and Ibrahim. Another single arrow from Hülya to Başak shows that Hülya has construct correspondence from Başak. The only lack of construct correspondence between Fatma and Berna may be interpreted as “Fatma and Berna construe effectiveness in language teaching different from each other.” This lack of correspondence might be due to the differences in regard to backgrounds of these two teachers, their priorities and concerns, and/or their way of conceptualising teaching.

4.3.2 The Socio Analysis of Teachers' Grids at Time 2

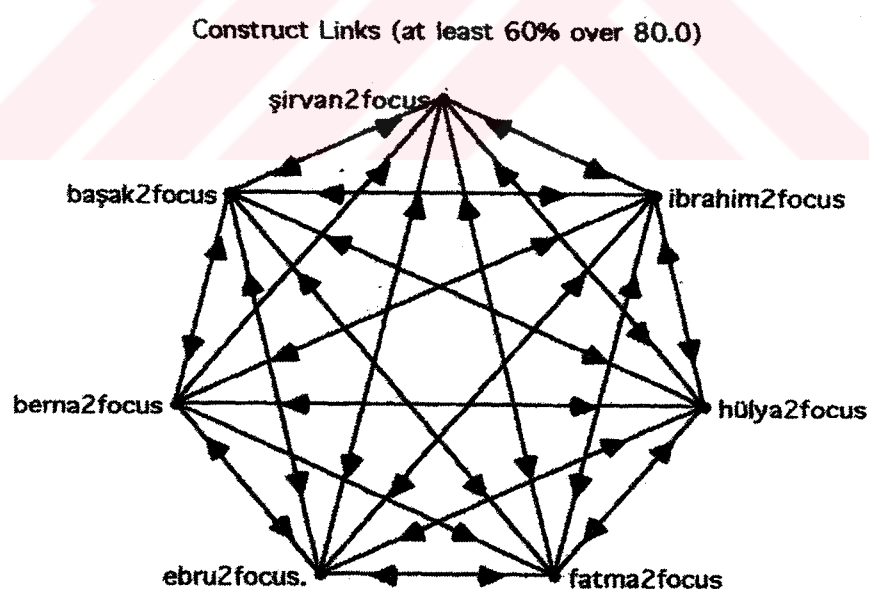


Figure 4.23 The Socionet Analysis of Teachers' FOCUSED Grids at Time 2

The Socionet analysis of teachers' grids at Time 2 (see Figure 4.23) reveals that there is an increase in the commonality of constructs between the teachers. That is, the socionet of the teachers displays a larger number of links, indicating a more convergent net. The process they have been involved in and their experiences resulted in a higher consistency in the teachers' construing of effectiveness in language teaching at Time 2.

At Time 2, we see that there are only 2 one-way correspondence; from Berna to Fatma and Berna to Şirvan. The rest of the teachers have two-way correspondence. The analysis of the commonality of construing between the participants at the beginning and end of the study may be helpful in interpreting the patterns and the results identified so far.

To sum up, a relatively larger number of links are seen at Time 2. While Time 1 grid produced 37 significant construct links at a level of at least 60% over 80%, at Time 2, there were a total of 40 links at the same level. Drawing upon this change, we may speculate that the experiences the teachers have gained and the process they have been involved in led them to focus more on effectiveness in language teaching. That is, how these teachers see themselves both personally and professionally, how any problems that arose in their classes might have been approached and solved, and their view of increasing the effectiveness in language teaching have been reconsidered and reformulated. Each has had different problems and different approaches to the problems. Their performance during the sessions and classroom inquiry process and their observed classes have impacted on the way they perceive effective language teachers. They have worked collaboratively; discussed, negotiated their own problems and learnt about other colleagues' problems in

input sessions. Later, they tested their ideas and tried to solve their own problems during classroom inquiry process. In this process, they have discussed more, negotiated more issues resulted from their findings or tests. So, naturally, they have found a larger space and a common ground for sharing their problems through collaboration. That is to, say the teachers construed effectiveness in language teaching more similarly after the program than they did before the program. This change may be both due to the diversity of the experiences gained by each teacher during the process and the teachers' learning process. Kolb argues for experiential learning on the grounds that it facilitates personal growth, which may have been responsive to their needs. Teachers' experiential learning must have built a bridge from what they have known to the new. They must have made sense of their immediate experiences through a process of transformation (Kolb, 1984).

Extract 1

After the activity, I learned the identification of a problem during an observation. I learned how to identify a problem. What I learned in the session was applicable in my teaching. I could find out my problems and I could easily try to find solutions to these problems. I could identify my problems and I could share my thoughts with my colleagues.

(Berna)

The Sociality Corollary, that best explains the above mentioned issue, discusses the possibility that group members may have similarities with each other, but also the ability to reinforce and/or change other group member's existing constructs in order to build a consensus.

4. 4 The Overall View of the Content of Personal Theories

The content analysis of the repertory grid data obtained from the 7 teachers produced a total of 74 constructs at Time 1 and a total of 129 constructs at Time 2. The content of personal theories can be analysed under three broad categories. Meanwhile, the first category is displayed under 3 sub-categories since it is quite large. The 3 broad and the 3 sub-categories within themselves are as follows (see Table 4.15):

A. Teaching Behaviours

1. Presentation Skill
2. Management Skill
3. Technical Skill (use of teaching aids and materials)

B. Personal Quality

C. Academic Quality

The frequency of the teachers' constructs regarding the features of teachers that lead to effective language teaching are displayed at Time 1 and Time 2.

Table 4.15 The Frequency of 7 Teachers' Constructs Regarding Personal Theories at Time 1 and Time 2

CONSTRUCTS	f*	Time 1	Time 2
A. TEACHING BEHAVIOURS			
1. Presentation Skill			
1. Is well organised in teaching	4	1	3
2. Finishes lesson with revision	1	-	1
3. Gives extra examples for ss'* better understanding	2	1	1
4. Revises the previous lesson at the beginning of each	5	2	3

lesson			
5. Simplifies the subject for ss' better understanding	2	1	1
6. Teaches well	3	1	2
7. Uses appropriate method	1	-	1
8. Uses body language	2	1	1
9. Uses different methods	2	-	2
10. Uses English in class effectively	4	2	2
11. Uses examples from daily life	2	1	1
12. Uses lesson plan	2	1	1
13. Warms up ss at the beginning of each lesson	2	1	1
TOTAL:13	32	12	20
2. Management Skill			
14. Attracts ss' attention	7	3	4
15. Deals with silent ss as well	1	-	1
16. Encourages ss	3	1	2
17. Encourages ss' language learning awareness	2	1	1
18. Encourages ss' speaking language	1	-	1
19. Encourages ss' taking responsibility	1	-	1
20. Gives clear instructions	1	-	1
21. Has good classroom management	4	1	3
22. Has no immediate error correction	1	-	1
23. Homework is for repetition and long lasting	1	-	1
24. Is active during lesson	4	1	3
25. Makes ss aware of subject	2	1	1
26. Makes ss think	1	-	1
27. Motivates ss	2	1	1
28. Student centered lessons	4	1	3
29. Timing is important	1	-	1

30. Uses drama in lesson	2	1	1
31. Uses gestures	2	1	1
32. Uses her teaching voice effectively	4	1	3
TOTAL:19	44	13	31
3. Technical Skill			
33. Asks good exam questions	2	1	1
34. Corrects ss' mistakes on board	1	-	1
35. Shows films related to subject	2	1	1
36. Uses extra materials	12	6	6
37. Uses technological devices in class	2	1	1
38. Uses visual materials	4	1	3
39. Uses worksheets for reinforcing ss learning	2	1	1
TOTAL:7	25	11	14
B. PERSONAL QUALITY			
40. Considers ss' interests	2	1	1
41. Considers ss' needs	7	3	4
42. Experienced	1	-	1
43. Friendly/sarcastic	2	1	1
44. Friendly/strict	1	-	1
45. Gets on well with ss	5	2	3
46. Gives importance to listening	2	1	1
47. Gives importance to personal development	1	-	1
48. Gives importance to physical appearance	3	1	2
49. Gives importance to speaking	2	1	1
50. Gives importance to ss' ideas in class	2	1	1
51. Gives importance to ss' learning	1	-	1
52. Gives importance to ss' production	3	-	3
53. Gives importance to ss' responses	2	1	1
54. Gives positive energy to ss	3	1	2

55. Gives ss self confidence	1	-	1
56. Has good contact with ss individually	2	1	1
57. Is not stick to schedule	1	-	1
58. Is prepared before lesson	12	6	6
59. Makes jokes	1	-	1
60. Makes ss search for new things	2	1	1
61. Makes ss work harder	2	1	1
62. Never sits on her desk	1	-	1
63. Supports ss' learning	1	-	1
64. Sympathetic	1	1	-
65. Teaches extra things as well	7	3	4
66. Teaches other skills as well	2	1	1
67. Teaching is important in her life	2	1	1
68. Tolerant	5	2	3
69. Touches ss in class	2	1	1
70. Understanding	2	1	1
TOTAL:31	81	32	49
C. ACADEMIC QUALITY			
71. Has good English knowledge	3	1	2
72. Has good pronunciation	3	1	2
73. Has rich vocabulary	1	-	1
74. Innovative in teaching	4	1	3
75. Open to change	8	3	5
76. Speaks English fluently	2	-	2
TOTAL:6	21	6	15
GRAND TOTAL	203	74	129

* f: frequency

* ss: students

At the beginning of the study (Time 1), 7 teachers used a total of 52 constructs to define an effective language teacher's characteristics (see Table 4.16). 27 of these constructs are concerned with the teaching behaviours category - 10 of which are associated with presentation skills, 11 of which are associated with management skills, 6 of which are associated with the technical skills - 21 of them are concerned with personal qualities, and 4 of them are concerned with the academic qualities of an effective language teacher.

Table 4.16 Frequency of Constructs at Time 1 and Time 2

Construct categories	Frequency of Time 1 constructs	Frequency of Time 2 constructs
A. Teaching Behaviours	27	39
1. Presentation Skill	10	13
2. Management Skill	11	19
3. Technical Skill	6	7
B. Personal Quality	21	30
C. Academic Quality	4	6
TOTAL	52	75

Most frequently cited constructs at Time 1 are: *is prepared before lesson* (6 times), *uses extra materials* (6 times), *teaches extra things as well* (3 times), *considers students' needs* (3 times), *attracts students' attention* (3 times), and *open to change* (3 times).

The first two most frequently cited constructs, *is prepared before lesson* and *teaches extra things as well* imply personal qualities of an effective language teacher. That is, these two constructs are used as umbrella terms covering features such as being prepared before lessons, being very good at subject knowledge, being able to teach extra things in class, being able to support students' learning with using extra teaching aids . The teachers in this

study, since they deal with students who are at the very beginning of language learning, believe that a language teacher needs preparation in order to cover the subject and to be able to convey knowledge clearly. While doing this, s/he must use extra materials both for breaking routine coursebook teaching only, and for creating a desire for learning atmosphere for his/her students. We may suggest that the teachers in this study give more importance to personal qualities than to the other characteristics of an effective language teacher. The reason for this may be the level and age of students they deal with.

The other 3 most frequently cited constructs at Time 1 are related with 3 broad categories; one of which is related to personal quality, the second is related to teaching behaviours and the last one is related to the academic quality of teachers. This may mean that the teachers are more or less aware of the meanings they attached to the constructs at Time 1.

At the end of the study (Time 2), the 7 teachers cited 75 constructs in total (see Table 4.16). The teachers' repertoire of personal constructs has expanded. Only one of the Time 1 constructs, *sympathetic* was deleted at Time 2. The most frequently cited constructs are: *is prepared before lesson* (6 times), *uses extra materials* (6 times), *open to change* (5 times), *teaches extra things as well* (4 times), *considers students' needs* (4 times), *attracts students' attention* (4 times), *revises the previous lesson at the beginning of each lesson* (3 times), *uses visual materials* (3 times), *student centered lesson* (3 times), *is well organised in teaching* (3 times), *has good classroom management* (3 times), *gives importance to students' production* (3 times), *tolerant* (3 times), *innovative in teaching* (3 times), *gets on well with students* (3 times), *is active during lesson* (3 times), and *uses her teaching voice clearly* (3 times). Three of

which (*is prepared before lesson* (6 times), *considers students' needs* (4 times), *teaches extra things as well* (4 times)) are related to personal qualities of teachers, two of which; *uses extra materials* (6 times), *attracts students' attention* (4 times) are related to teaching behaviours and the construct, *open to change* (5 times) is related to the academic quality of teachers. Similarly, at Time 2, the teachers' most frequently cited constructs fall into the category of personal qualities of teachers; secondly, the teaching behaviours of teachers are cited most frequently and academic qualities comes later. That is, firstly, at Time 2, the teachers became more aware of the meanings they attached to the constructs. Secondly, the 6 most frequently cited constructs at Time 1 are among the most frequently cited constructs at Time 2. And thirdly, the teachers used 11 other constructs and cited them frequently. This shows that teachers' repertoire of personal constructs have become larger. Besides, they have become more aware of the constructs they used frequently at Time 1 and cited more constructs more frequently. That is, some less frequently cited constructs at Time 1 gained importance and were cited more frequently. These are: *considers students' needs, teaches extra things as well, attracts students' attention, revises the previous lesson at the beginning of each lesson, uses visual materials, student centered lessons, is well organised in teaching, has good classroom management, tolerant, innovative in teaching, gets on well with students, is active during lesson, uses her teaching voice effectively, and open to change.*

On the other hand, the construct, *gives importance to students' production* was not cited as a construct at Time 1. However, this construct was cited 3 times at Time 2. Thus, we may speculate that the teachers started to

see some of the features of an effective language teacher to be as important as the other characteristics of an effective language teacher during this process (see Table 4.15).

In identifying general patterns of change between Times 1 and 2, we can state that there is an increase in the content of teachers' constructs at the end of the study. This can be interpreted as "dialectical" and consistent with Kelly's theory. The teachers might have had opportunities for reordering, "reconstruction" (Sendan, 1995) and recontextualisation of their personal theories from the beginning to the end of this study. They might have gained reflective space in which all the teachers have opportunities for adding and categorising personal constructs according to their specific content.

Another matter of interest emerging from the patterns of change is the fact that the construct categories demonstrated a recurrent theme. That is, construct categories did not demonstrate a thematic change but more constructs.

It may be relevant to have a closer look at the constructs under each category. In the following categories below (see sections 4.4.1, 4.4.2, and 4.4.3), the changes occurred in the frequency of citation are discussed in detail.

4.4.1 Teaching Behaviours

There are totally 39 constructs in total in this category. These 39 constructs have been cited 101 times. While at Time 1, the frequency of citation was 36, at Time 2, it was 65. This first category has been displayed under 3 sub-categories. This is the most frequently referred to category

throughout the program. That is, between Time 1 and Time 2, constructs in this category remained consistently the most frequent and the most important for the teachers. Naturally, the highest content change was observed in this category which was a noticable increase in the teachers' personal constructs. Among the sub-categories (1, 2 and 3) of this category, we observed the highest changes in the second category- management skills.

1. Presentation skill: In this sub-category, we observe the construct *revises previous lesson at the beginning of each lesson* was cited 5 times; twice at Time 1 and 3 times at Time 2. At the end of the study, the frequency of this construct has increased, indicating that more teachers viewed this feature as important. Another frequently cited construct is *uses English in class effectively, which* was cited 4 times; twice at Time 1 and twice at Time 2. This shows that this construct was deemed as equally important at both Times. The other construct cited 4 times is *well organised in teaching*. This was cited once at Time 1 and three times at Time 2, indicating that more teachers became aware of its importance. The construct, *teaches well* was cited 3 times; once at Time 1 and twice at Time 2, which indicates that it has gained more importance at Time 2. The 6 constructs; *gives extra exercises for students' better understanding, simplifies the subject for students' better understanding, uses body language, uses examples from daily life, uses lesson plan, and warms up students at the beginning of each lesson* were cited twice each respectively once at Time 1 and once at Time 2. This shows us that each was deemed as equally important at both Times 1 and 2. On the other hand, while 2 constructs, *finishes lesson with revision* and *uses appropriate methods*, were cited once

each and were cited at Time 2 only, and the construct; *uses different methods* was cited twice and only at Time 2. The last 3 constructs mentioned were not cited at Time 1. They were started to be seen as important characteristics of language teachers only at Time 2. This may mean that, the teachers began to see these constructs as important and added them to their Time 2 grids. This indicates that teachers' constructs increased at Time 2 and they started to consider the other important characteristics of language teachers. This change may be due to the process they have been involved in. Besides this, if we look at the teachers' constructs added into this sub-category at Time 2, we notice that they began to concentrate on two points in presentation skills; method and revision of the lesson. So, we may state that the program and the process they have been involved in must have developed an awareness of making personal theories explicit on these points. They have had a chance for recalling their past knowledge and improving their professional knowledge for the new situations.

2. Management Skill: In this second sub-category, we observe the construct *attracts students' attention* was cited 7 times; 3 times at Time 1 and 4 times at Time 2. This construct is one of the most frequently cited constructs of all categories. This indicates that this characteristic of a language teacher is seen as one of the most important features of an effective language teacher.

Other frequently cited 4 constructs are: *has good classroom management, is active during lesson, student centered lessons, and uses her teaching voice effectively* were cited 4 times each; once at Time 1 and 3 times

at Time 2. That is, more teachers became aware of other features that outweigh the importance of these constructs.

Furthermore, *encourages students* was cited 3 times; once at Time 1 and twice at Time 2, which maintains the importance of this construct. Moreover, 5 other constructs *encourages students' language learning awareness*, *makes students aware of subject*, *motivates students*, *uses drama in lesson*, and *uses gestures* remain the same at Time 2, one citation at each time, maintaining their importance.

Except for these 11 constructs mentioned above, the remaining 8 constructs under this category are cited once, only at Time 2. The teachers began to see those characteristics of an effective language teacher as important and added them to their repertoire at Time 2. The experiences gained during the study might have led the teachers to change their views and felt a need for adding more personal constructs.

The highest increase in the number of constructs obtained from the teachers is in this sub category at Time 2. This may mean that the teachers' experiences and knowledge gained through the process of learning by doing might have focused their concentration more on this category. This can be a result of a felt need of the teachers during the process and this may be interpreted as a process of development, as suggested by Bannister and Fransella (1980).

3. Technical Skill: In this sub-category, we observe that one of the two most frequently cited constructs, *uses extra materials* are cited 12 times; 6 times each at Times 1 and 2. The stability of this construct demonstrates that

most of the teachers were certain about the importance of this feature for an effective language teacher. *Uses visual materials* is another construct which was cited four times- once at Time 1 and 3 times at Time 2. This may mean that more teachers began to see this construct as important at Time 2.

Asks good exam questions, shows films related to subject, uses technological devices in class and uses worksheets for reinforcing students' learning were cited twice; once at Time 1 and once at Time 2. We may suggest that these constructs have not lost their value from the teachers' point of view and remained the same at both times. While the construct, *corrects students' mistakes on board* was not cited as an important construct at Time 1, it gained importance at Time 2 and one of the teachers cited this as an important characteristic of an effective language teacher.

Technical skill has been the least frequently mentioned sub-category and the least important aspect of effective language teaching for the teachers in our study. However, the constructs in this category attracted the teachers' attention throughout the program; they cited all Time 1 technical skill constructs at Time 2 as well. So, the experiences gained did not lead the teachers' to change their views regarding their Time 1 constructs.

Extract 2

I will try to find out interesting topics to talk about in the class. I will try to use different activities in some lessons in order not to bore my students because students love different activities, extra materials, and especially, visual materials. (Berna)

4.4.2 Personal Quality

The second category consists of constructs related with the personal qualities of an effective language teacher (see Table 4.15). There are 31 constructs; all of which are cited 81 times; 32 times at Time 1 and 49 times at Time 2. Two of the most frequently cited constructs at both times fall into this category; *is prepared before lesson* was cited 6 times at Time 1 and 6 times at Time 2. Most teachers were certain about the importance of this construct at both times. In addition, *considers students' needs and teaches extra things as well* cited 7 times each; 3 times at Time 1 and 4 times at Time 2. At Time 2, citation of these two constructs increased, which may indicate that it gained more importance by more teachers at Time 2. Most of the teachers view these constructs as important characteristics of an effective language teacher at both times. Likewise, *gets on well with students* and *tolerant* are cited 5 times at Times 1 and 2; twice at Time 1 and 3 times at Time 2.

Furthermore, the other 3 most frequently cited constructs are *gives importance to physical appearance*; cited once at Time 1 and twice at Time 2, *gives importance to students' production*; cited 3 times only at Time 2 and *gives positive energy to students*; cited once at Time 1 and twice at Time 2. The frequency of citation increased at Time 2 which means that the teachers began to consider these constructs as important features of an effective language teacher. The process in which the teachers were involved might have affected their perception of effective language teaching.

The other 13 constructs; *considers students' interests*, *friendly/sarcastic*, *gives importance to listening*, *gives importance to speaking*, *gives importance to*

students' ideas in class, gives importance to students' responses, has good contact with students individually, makes students search for new things, makes students work harder, teaches other skills as well, teaching is important in her life, touches students in class and understanding were cited twice each; once at both times. That is, these constructs were seen equally valuable to teachers at both times.

Lastly, the 9 constructs; *experienced, friendly/strict, gives importance to personal development, gives importance to students' learning, gives students self confidence, is not stick to schedule, makes jokes, never sits on her desk, and supports students' learning* were cited once only at Time 2. However, the only construct that was cited at Time 1 and deleted later is *sympathetic*. It has lost its value at Time 2.

Subsequent to the highest increase in the number of constructs added at Time 2 in the category A (teaching behaviours), the second highest increase in the number of constructs are observed in category B. The teachers added 9 more constructs at Time 2. The new constructs' thematic pattern indicates us that they are mostly related with teachers' personal development, their approach towards students in class and more teachers' active involvement in the students' learning process. This involvement might be due to their learning by doing process and knowledge gained through the program, especially during the input sessions.

4.4.3 Academic Quality

We observe only 6 constructs in this category. The most frequently construct in this category is *open to change*, which was cited 8 times; 3 times at

Time 1 and 5 times at Time 2. This construct gained value at Time 2 and nearly doubled its frequency. This may be due to the experiences of teachers gained during the input and classroom inquiry phases. The next most frequently cited construct in this category is *innovative in teaching* which was cited 4 times; once at Time 1 and 3 times at Time 2. This construct gained more importance at Time 2.

Moreover, the constructs *has good English knowledge* and *has good pronunciation* were cited 3 times; once at Time 1 and twice at Time 2. The teachers began to see them as more important at Time 2. On the other hand, *speaks English fluently* was cited twice at Time 2 only. The teachers became aware of this as an important characteristic of an effective language teacher at Time 2.

Lastly, *has rich vocabulary* is another construct that was seen as important only at Time 2. Although having rich vocabulary and being able to speak fluent English in class are seen as two important characteristics of an effective language teacher at Time 2, more teachers (nearly two third of the teachers) cited being open to change as the most important (3 teachers at Time 1 and 5 teachers at Time 2) construct in this category. This increasing concern may be interpreted as becoming more aware of this construct and its value for an effective language teacher. We find this change in the teachers' choice important since the meaning attached to this construct is in line with the philosophy of the teacher development program upon which this study has been based.

4.5 The Overall View of Changes in Content

At the end of the study (Time 2), 7 teachers added 24 new constructs (see Table 4.18), and the researcher elicited 129 constructs in total from the teachers. That is, the teachers added 55 constructs in total to their repertoires (see Table 4.17). Of the 24 new constructs, the number of frequency of the newly conceived constructs was 28.

Table 4.17 Total Number of Constructs of the Teachers at Time 1 and Time 2

The Teachers	Number of Constructs at Time 1	Number of Constructs at Time 2	Additional Constructs Number
BAŞAK	9	19	+10
BERNA	10	15	+ 5
EBRU	12	20	+ 8
FATMA	10	16	+ 6
HULYA	11	18	+ 7
IBRAHİM	10	19	+ 9
ŞIRVAN	12	22	+10
TOTAL	74	129	+ 55

Only one of the constructs was deleted at Time 2 by one of the teachers. This was *sympathetic*. When asked as to the reasons for this, she expressed that

Extract 3

Being sympathetic may be a characteristic of a teacher but not one of the important characteristics of an effective teacher. There are some more important characteristics to define a language teacher. During the process of this program, I have learnt that being sympathetic is less important than the other characteristics of an effective language teacher. Because I have learnt many other important things to define an effective

language teacher. Sympathetic teachers are loved but this does not mean that they are effective teachers. (Ebru)

Table 4.18 Constructs Added at Time 2

Number	Constructs Added at Time 2	Time 2 frequency
1	Gives importance to ss' production	3
2	Speaks English fluently	2
3	Uses different methods	2
4	Is not stick to schedule	1
5	Corrects ss' mistakes on board	1
6	Makes ss think	1
7	Finishes lesson with revision	1
8	Uses appropriate method	1
9	Supports ss' learning	1
10	Gives importance to ss' learning	1
11	Encourages ss' taking responsibility	1
12	Hwk. is for repetition and long lasting	1
13	Has no immediate error correction	1
14	Deals with silent ss as well	1
15	Gives clear instructions	1
16	Timing is important	1
17	Encourages ss' speaking language	1
18	Gives ss self confidence	1
19	Has rich vocabulary	1
20	Makes jokes	1
21	Friendly/strict	1
22	Never sits on her desk	1
23	Experienced	1
24	Gives importance to personal development	1
Total: 24		28

When we consider the general view of the 24 new constructs the teachers added to their repertoire in order to define an effective language teacher, we

come across 12 teaching qualities—3 of which are related to presentation skills, 8 of which are related to management skills and only 1 is related to technical skill—and 10 are connected with the personal qualities and 2 are related to academic qualities.

The new constructs are reorganised in the construct categories (A, B and C). The majority of the teachers' additional constructs at Time 2 fall into teaching behaviours (A), then personal qualities (B) are emphasised, and academic qualities (C) appear to be the least mentioned features of effective teachers. Within the teaching behaviours' sub-categories, most new constructs fall into the category related to management skills. Most of the remaining new constructs fall into the category related to personal qualities. The teachers became more interested in management skills and personal qualities rather than academic qualities or technical skills at Time 2. Their personal construct system indicated a high degree of similarity in their relation to classroom management and personal qualities. The dominant constructs they added to their Time 2 grids emphasised the "what else" could be done in the classroom in light of their new construct system.

Teachers' designing a list of strategies to overcome and carry out their plans, and implementing of strategies during classroom inquiry and action research project writing process contributed to their learning and change, which is in line with the statement of Richards and Lockhart (1994) "much can be learned about teaching through self-inquiry" and "much of what happens in teaching is unknown to the teacher" (p. 3).

Reflecting on the above mentioned results, we may say that it is quite natural for the teachers to add constructs in such a way because of the process

they have been involved in. The teachers' observed classes and their classroom inquiry process might have led them to rethink their personal theories and theories in action. They became more aware of their individual practices through analyses and reflection with a view to improving that practice, thus leading to better language learning for students in their classes.

4.6 The Overall View of the Structure of Personal Theories

When we look at the table 4.19 below, we see that at Time 1, the researcher elicited 74 constructs from 7 teachers while she elicited 129 constructs at Time 2. The researcher elicited 203 constructs in total from 7 teachers both at Time 1 and Time 2.

Table 4.19 The Structural Changes in Personal Theories Between Time 1 and Time 2

The Teachers	Frequency of Constructs		Both Times 1 and 2	Frequency of Constructs with Significant Structural Change
	Time 1	Time 2	Total	
BAŞAK	9	19	28	7
BERNA	10	15	25	9
EBRU	12	20	32	5
FATMA	10	16	26	2
HULYA	11	18	29	7
IBRAHİM	10	19	29	2
ŞİRVAN	12	22	34	8
Teachers: 7	74	129	203	40

The Exchange grid analysis displays the nature of changes observed in the structure of personal theories of the teachers in this study. The structural changes at both Time 1 and Time 2 are considerable.

The frequency of constructs provided by the teachers at Time 1 and Time 2 and the frequency of constructs that showed structural changes between Times 1 and 2 are displayed in Table 4.19. Out of 74 constructs provided by the teachers at Time 1, 40 constructs show significant structural changes at Time 2. This represents 54.05% of the teachers' personal theories. As seen in Table 4.19, significant structural changes at 80% cut off point occurred in 40 constructs. In this study, all the teachers' personal constructs show patterns of structural change. However, the number of changes in each of the teachers' constructs is different. While two of the teachers' construct change is 2, one of them is 5, the rest of the teachers' are 7 (two of them), 8 and 9.

4.7 The Overall View of the Structural Changes of the Teachers' Personal Theories

As displayed in Tables 4.19 and 4.20, the constructs that show structural changes at 80% cut off point varied in terms of what categories they are replaced with. We see that most of the structural changes occurred in the categories of teaching behaviours, personal quality comes next, and the least occurred in academic quality. This distribution of construct change is very similar to the patterns we get in the overall frequency and priority of the categories discussed in section 4.4. That is, the construct categories which got

the highest frequency and priority both times are those that show structural changes.

When we examine the constructs rank ordered in order to see whether or not the constructs with structural changes are the ones given high priorities, we may conclude that most of the high priority constructs in all the teachers' grids had gone through significant structural changes. 20 high priority constructs of the teachers showed significant structural changes at the end of the study. That is, 20 out of 40 constructs that showed significant structural changes were rank ordered as high priority constructs by the teachers. All of Başak's Time 1 high priority constructs, four of Berna's, three of Ebru's, one of Fatma's, two of Hülya's and two of Ibrahim's and three of Şirvan's constructs revealing significant structural changes at the end of the study were the high priority constructs of the teachers as well.

The constructs that showed significant structural changes at 80% cut off point displayed a complex and non-linear pattern. The constructs reflected thematic changes within the teachers' whole construct system. And more teachers' constructs showed higher match level at Time 2. We may state that the teachers' constructs showed thematic changes as well. This may mean that the teachers in this study continued reorganising their constructs, which is consistent with the nature of this study.

Table 4.20 Overall view of structural changes of the teachers' constructs

BASAK -teaches extra things as well* -gives importance to speaking -considers students' interests* -tolerant* -is prepared before lesson* -teaches other skills as well -uses extra materials*	HULYA -gives extra examples for students' better understanding* -considers students' needs -simplifies the subject for students' better understanding -uses body language* -uses drama in lesson -uses extra materials -shows films related to subject
BERNA -uses extra materials -uses English in class effectively* -makes students work harder -makes students search for new things* -is prepared before lesson* -open to change* -is well organised in teaching -gives importance to students ideas in class -friendly	SIRVAN -gives positive energy to students -is active during lesson -uses English in class effectively -uses lesson plan -uses visual materials -encourages students' language learning awareness* -uses extra materials* -understanding
EBRU -attracts students' attention* -is prepared before lesson* -asks good exam questions* -touches students in class -encourages students	FATMA -open to change* -teaches extra things as well IBRAHIM -gets on well with students* -open to change*

*: High Priority Constructs

4.8 The Overall View of High Priority Constructs at Times 1 and 2

In the analysis of the high priority constructs of the teachers, we aim to

- discuss and present the high priority constructs of the teachers in this study in order to investigate whether any change/s occurred between Times 1 and 2.

- investigate whether the teachers' whose high priority constructs showed pattern/s of change also displayed a change in their perception of current and ideal selves.

Table 4.21 High Priority Constructs of the Teachers

The Teachers	TIME 1	C	TIME 2	C	C.C
Başak	1. considers ss' interests 2. teaches extra things as well 3. is prepared before lesson 4. uses extra materials 5. tolerant	C7 C6 C2 C4 C9	1. gets on well with ss 2. teaches other skills as well 3. is not stuck to the schedule 4. uses different methods 5. is prepared before lesson	C1 C3 C16 C11 C2	C2
Berna	1. open to change 2. uses English in class effectively 3. motivates ss 4. makes ss search for new things 5. is prepared before lesson	C3 C8 C9 C10 C2	1. uses English in class effectively 2. has good English knowledge 3. gets on well with ss 4. speaks English fluently 5. motivates ss	C8 C11 C14 C12 C9	C8 C9
Ebru	1. is prepared before lesson 2. warms up ss at the beginning of each lesson 3. revises the previous lesson at the beginning of each lesson 4. attracts ss' attention 5. asks good exam questions	C7 C10 C11 C5 C12	1. attracts ss' attention 2. encourages ss 3. gives positive energy to ss 4. asks good exam questions 5. makes ss think	C4 C1 C14 C11 C12	C5 / C4 C12 / C11

Fatma	1. has good contact with ss individually 2. open to change 3. teaches well 4. uses extra materials 5. is prepared before lesson	C5 C2 C3 C4 C6	1. teaching is important in her life 2. teaches well 3. attracts ss' attention 4. supports ss' learning 5. has good contact with ss individually	C10 C3 C9 C15 C5	C5 C3
Hülya	1. revises the previous lesson at the beginning of each lesson 2. gives extra examples for ss' better understanding 3. makes ss aware of subject 4. considers ss' needs 5. uses body language	C11 C7 C3 C5 C10	1. attracts ss' attention 2. simplifies the subject for ss' better understanding 3. open to change 4. teaches well 5. gives ss self confidence	C2 C6 C13 C18 C19	-
İbrahim	1. gets on well with ss 2. considers ss' needs 3. is prepared before lesson 4. open to change 5. innovative in teaching	C1 C8 C2 C4 C7	1. considers ss' needs 2. gives importance to ss' learning 3. encourages ss' taking responsibility 4. gives importance to ss' production 5. finishes lesson with revision	C8 C11 C13 C14 C15	C8
Şirvan	1. is prepared before lesson 2. uses extra materials 3. uses visual materials 4. student centered lessons 5. encourages ss' lang. learn. awareness	C4 C2 C3 C10 C6	1. uses visual materials 2. gives importance to personal development 3. encourages ss' lang. learning awareness 4. uses extra materials 5. is well organised in teaching	C3 C15 C6 C2 C13	C2 C3 C6

C: Constructs

C.C: Common constructs

When we analyse the results displayed in Table 4.21, we may conclude that, except one teacher (Hülya), 3 teachers (Berna, Ebru, Fatma) have 2 common high priority constructs, 2 teachers (Başak and Ibrahim) have only 1 and 1 of the teachers has 3 common high priority constructs between Times 1 and 2.

The above mentioned 11 common high priority constructs teachers cited at both Times 1 and 2 were: *is prepared before lesson, uses English in class effectively, motivates students, attracts students' attention, asks good exam questions, has good contact with students individually, teaches well, considers students' needs, uses extra materials, uses visual materials and encourages students' language learning awareness*. The position of these high priority constructs changed within themselves. For example, while being prepared before lesson was seen as Başak's third most important construct at Time 1, it became the last (5th) most important construct at Time 2. That is, while she construed this characteristic of an effective language teacher as the third most important construct at Time 1, she began to construe the same construct as the 5th most important construct in the rank order. This may mean that she started to give more importance to her other constructs. This may be due to enlargement of her personal theories and as a result of the additional constructs she held at Time 2. Başak cited 4 of her top priority constructs from personal qualities category at Time 1 and Time 2. Only one of her high priority constructs is related to the management skill sub category at Time 1 and one of her Time 2 high priority construct is related to presentation skills.

In Berna's case, while she perceived using English in class effectively as her 2nd most important construct at Time 1, she began to construe this

construct as her 1st most important construct at Time 2. She must have thought that using English in class effectively was the most important characteristic of an effective language teacher. It was more important than being open to change which she cited as the 1st most important construct at Time 1. Her 1st most important construct has lost its top position and was not seen in the rank order at Time 2; instead 3 new constructs were added at Time 2. Motivating students was seen as her 3rd most important construct at Time 1. However, it changed at Time 2 and became the last (5th) most important construct in the rank order. Berna's top priority constructs at both Times 1 and 2 resemble all categories. It is noteworthy that three of her top priority constructs at both Times 1 and 2 are related with academic qualities. She is one of the participants who loves reading academic articles and is eager to further her knowledge through conducting research.

In Ebru's case, attracting students' attention was seen as the 1st most important construct at Time 2. It changed its position from the 4th most important construct in the rank order at Time 1 and became the most important construct in the rank order at Time 2. Asking good exam questions was her 5th most important construct at Time 1 and it became the 4th most important construct at Time 2. 8 of her top priority constructs at both times are related to teaching behaviours—presentation and management skills—and the rest of them are related with personal qualities.

As to Fatma, having good contact with her students' individually was her 1st most important construct at Time 1. However, it became the last (5th) most important construct at Time 2. She started to believe that an effective language teacher should give more importance to teaching as a profession and it should

be a “must” for a language teacher. Teaching well was her other common construct between Times 1 and 2. She expressed the reason for this in the interview as follows:

Extract 4

The first important thing for a language teacher as general should be teaching. Because it is your life style, “the window through which you view life.” Teaching as a profession should be taken seriously first. Then, teaching well should be your aim in order to practice your profession better. I believe that you are born a teacher, it is a talent not a superficially construed profession. You love it or not. If you were born a teacher, it becomes your life style. You see everything from this perspective. Then, to be a good teacher, you spend time and think in order to teach well. The next thing is to be skillful in getting your students’ attention. If you support your students’ learning, and guide them one-by-one, the success is inevitable. In order to construe success in our profession, we should deal with our students individually.

Most of her high priority constructs at both times (5 constructs) are related to personal qualities, one of which is related to academic quality and the rest of them are from the teaching behaviour category.

Hülya cited none of her Time 1 high priority constructs at Time 2. This may be due to revising her personal theories and the constructs she added at Time 2. She cited 3 of her new constructs as high priority constructs in the rank order at Time 2.

Hülya cited only two of her top priority constructs from the personal quality category and the rest of them are related to teaching behaviours—either presentation or management skills.

Considering students' needs was the only construct that Ibrahim cited as a high priority construct at both times. Time 2 rank ordering of Ibrahim's grid showed that he used 4 new top priority constructs from Time 2. Considering students' needs was his 2nd most important construct at Time 1. It became the most important construct at Time 2 and he added 4 additional constructs at Time 2. We might suggest that giving importance to students' learning, encouraging students' taking responsibility, giving importance to students' production, and finishing the lesson with revision gained importance. This may be due to the additional constructs he added at Time 2. We observed that the newly added high priority constructs were his important constructs as well. That is, he has been trying to use them in class. This shows us that we see consistency between his personal theories and theories in action. Those high priority constructs of Ibrahim were all observed in his classes. And we must admit that he was quite successful in applying his personal theories in action.

Ibrahim has cited most of his top priority constructs from the category of personal qualities, two of them are related to academic quality and only one of his top priority construct is related to management skill.

Using extra materials and using visual materials and encouraging students' language learning awareness were Şirvan's 3 common constructs—her 2nd and 3rd and 5th most important constructs—at Time 1. At Time 2, she construed using visual materials as her 1st and using extra materials as her 4th and encouraging students' language learning awareness as her 3rd most

important constructs. The position of constructs changed and she started to believe that using visual materials had more priority than using extra materials. While encouraging students' language learning awareness was her 5th most important construct at Time 1, it became her 3rd most important construct at Time 2. She cited 2 of her Time 2 constructs as the most important constructs in the rank order at Time 2. Şirvan has chosen two of her top priority constructs from personal qualities and the rest of her top priority constructs are related to the teaching behaviours of teachers.

When we analyse the first most important constructs of the teachers (see Table 4.21), we see that both at Times 1 and 2, 3 constructs: *gets on well with student, is prepared before lesson, and attracts students' attention* have high frequencies. In fact, when we look at the Table 4.21 and 4.22 (High Priority Constructs and Their Frequency at Time 1 and Time 2), these 3 constructs are among the 5 most frequently cited high priority constructs of 43 at Time 1 and Time 2.

Table 4.22 The First Top Priority Constructs at Time 1 and Time 2

The Teachers	Time 1	Time 2
BASAK	considers ss' interests	gets on well with students
BERNA	open to change	uses English in class effectively
EBRU	is prepared before lesson	attracts ss' attention
FATMA	has good contact with ss individually	teaching is important in her life
HULYA	revises the previous lesson at the beginning of each lesson	attracts ss' attention
IBRAHIM	gets on well with ss	considers ss' needs
SIRVAN	is prepared before lesson	uses visual materials

Each of the constructs mentioned above has been cited as the first most important construct by 2 teachers. While *is prepared before lesson* has been cited as the first top priority construct by 2 teachers at Time 1, *attracts students' attention* has been cited as the first top priority construct by 2 teachers at Time 2. The construct, *gets on well with students*, has been cited as the first top priority construct in the rank order by 1 of the teachers at Time 1, and by another teacher at Time 2. That is, the majority of the teachers (4 teachers out of 7) seem to believe that either being well prepared before lesson or getting on well with students are the most important characteristics of an effective language teacher. 2 teachers in this study believe that attracting students' attention (both cited at Time 2) is the most important characteristic of an effective teacher.

The following table shows the teachers' high priority constructs and frequency of high priority constructs at Times 1 and 2.

Table 4.23 High Priority Constructs and Their Frequency at Time 1 and Time 2

High Priority Constructs	TIME 1 frequency	Rank order	TIME 2 frequency	Rank Order	Frequency of Citation
Is prepared before lesson	6	1st, 1st, 3rd, 3rd, 5th, 5th	1	5th	7
Uses extra materials	3	2nd, 4th, 4th	1	4th	4
Open to change	3	1st, 2nd, 4th	1	3rd	4
Attracts ss' attention	1	4th	3	1st, 1st, 3rd	4
Gets on well with ss	1	1st	2	1st, 3rd	3
Teaches well	1	3rd	2	2nd, 4th	3

Considers ss' needs	2	2nd,4th	1	1st	3
Encourages ss' lang. learning awareness	1	1st	1	3rd	2
Has good contact with ss individually	1	1st	1	5th	2
Uses English in class effectively	1	2nd	1	1st	2
Motivates ss	1	3rd	1	5th	2
Asks good exam questions	1	5th	1	4th	2
Uses visual materials	1	3rd	1	1st	2
Revises the prev. lesson at the beg. Of each lesson	2	1st, 3rd	-	-	2
Student centered lessons	1	4th	-	-	1
Gives extra examples for ss' better underst.	1	2nd	-	-	1
Makes ss aware of subject	1	3rd	-	-	1
Uses body language	1	5th	-	-	1
Innovative in teaching	1	5th	-	-	1
Considers ss' interests	1	1st	-	-	1
Teaches extra things as well	1	2nd	-	-	1
Tolerant	1	5th	-	-	1
Warms up ss at the begin. of each lesson	1	2nd	-	-	1
Makes ss search for new things	1	4th	-	-	1
Gives importance to pers. develop.	-	-	1	2nd	1

Is well organised in teaching	-	-	1	5th	1
Simplifies the subject for ss' better underst.	-	-	1	2nd	1
Gives ss self confidence	-	-	1	5th	1
Gives importance to ss' learning	-	-	1	2nd	1
Encourages ss' taking responsibility	-	-	1	3rd	1
Gives importance to ss' production	-	-	1	4th	1
Finishes lesson with revision	-	-	1	5th	1
Teaches other skills as well	-	-	1	2nd	1
Is not stick to the schedule	-	-	1	3rd	1
Uses different methods	-	-	1	4th	1
Has good English knowledge	-	-	1	2nd	1
Speaks English fluently	-	-	1	4th	1
Encourages ss	-	-	1	2nd	1
Gives positive energy to ss	-	-	1	3rd	1
Makes ss think	-	-	1	5th	1
Teaching is important in her life	-	-	1	1st	1
Supports ss' learning	-	-	1	4th	1
TOTAL: 43					70

4.9 The Overall View of Changes in Teachers' Construction of Current Self and Ideal Self Between Time 1 and Time 2

Table 4.24 displays the element links of the teachers' self and ideal self as teachers established at Time 1 and Time 2.

Table 4.24 Teachers' Construction of Self and Ideal Self as Teacher

The Teachers	Self as aTeacher				Ideal Self as Teacher			
	Highest Link		Second Link		Highest Link		Second Link	
	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2	Time 1	Time 2
BAŞAK	Ideal	E1 Ideal	E3	E2	E1	Self E1	Self E3	E2
BERNA	T3	I1	T2	Ideal	E1	E1E2 E3	E2	Self I1
EBRU	Isolate	Isolate	-	-	E1 E2	E1 E2	E3	E3 T1
FATMA	Ideal E1	E3	E2 T1	E1 Ideal E2	E1 E2 Self	E1	E2	E2 E3 Self
HULYA	E2	Ideal E3	E1	E1 E2	E3	E1 E2	Self E2 E1	E3 Self
IBRAHİM	T1	E2 Ideal	E1	E1 E3	E2	Self E2	E1	E1 E3
ŞIRVAN	E2 E1	Ideal	Ideal	E2 E3	E1	Self	E2 Self	E2 E3

In this table, we see that at the beginning of the study (Time 1), two of seven teachers associated current self with their ideal teachers. That is, at the beginning of the program, these teachers view themselves as effective as their model teachers. Likewise, two of the teachers in this study construed themselves as very similar to the teachers they classified as effective which indicates that they might be aware of the characteristics of effective teachers and see association between those teachers and themselves. It also shows the self confidence of those teachers. On the other hand, two of the teachers viewed themselves as similar to teachers that fall into typical category . Three

of the teachers' second link elements were construed as typical. We may interpret this as openness to personal and professional development. One of the teachers at both Times 1 and 2 could not associate herself with any of the teacher categories.

At Time 2, on the other hand, five of the teachers viewed self as similar to ideal and effective teachers. Two teachers' second link elements associated with ideal teachers at Time 2. One of the teachers perceived herself as close to ineffective teachers. We might assume that this teacher had gone through experiences to lead her to reevaluate herself as a teacher and she feels that she needs more time and experience to become an effective language teacher.

One of the teachers perceived herself as similar to her model teacher at both times. This indicates that she is self confident. Regarding the teachers' construction of ideal self as teacher in relation to the way they classified them as effective, typical, and ineffective teachers, we come with the following associations.

At Time 1, only two of the teachers construed themselves as similar to their ideal self as teacher. It is noticable that all the teachers viewed ideal self close to the teachers that fall into effective teacher category. That is, at Time 1, all the teachers could associate their model teachers' characteristics and the effective teachers easily. Besides this, four of the teachers associated their current self as teachers either at the first or second link with their model teachers. The association between ideal self as teacher and effective teacher category continued similarly, and the teachers associated their ideal self with the characteristics of effective teachers. Ideal self was perceived as similar to effective teachers as well as self as a teacher by one of the teachers at Time 1.

On the other hand, three of the teachers identified ideal self as a teacher and current self as a teacher similarly, the rest of the teachers associated ideal self with the effective teachers' characteristics at Time 2. So, we may suggest that, regarding the above mentioned finding, teachers' self perceptions of current self as teacher are more open to change than the perceptions of ideal self as teacher.

Table 4.25 Self, Ideal Teachers and Elements Changed in Exchange Grids

The Teachers	Current Self (%)	Ideal Self (%)	Elements changed	Number of elements changed
BAŞAK	91.7	97.2	E2, I2, I3, T2, T1, I1 T3	7
BERNA	92.5	100	T1,I2,T2,T3,E3,I1	6
EBRU	86.4	100	I2,I1,I3,T3,T1	5
FATMA	95	100	T3,E3,T2,I2	4
HÜLYA	77.3*	100	I3,T3,Self,E1,T1,T2,I2	7
IBRAHİM	82.5	100	I2, T1, T2	3
ŞİRVAN	83.3	97.9	T3,T1,I2,I1,E1,E3,T2	7

*significant change (below 80% cut off point)

Regarding the construction of self as a teacher between two grids (Exchange grids), we see that only one of the teachers' perception of current self has changed (see Table 4.25). Hülya's current self falls into 77.3% which is below the 80% cut off point. While she construed herself very similar to her E2 and E1 at Time 1, Hülya started to construe her current self close to her ideal teacher and E3 at Time2. And at the end of the program, she seemed to have undergone a progress which might indicate that she must have realised her weaknesses as a language teacher and felt the need to improve to become a more effective language teacher. When we look at the element changes in

Table 4.25, we notice that 7 out of 11 elements showed significant changes. The elements that showed significant changes are: all of her typical teachers (T1, T2, and T3), her first effective teacher (E1) and two of her ineffective teachers (I2 and I3) and her current self as a teacher.

The analysis of the changes in the teachers' construction of current self and ideal self reveals that significant changes occurred in one of the teacher's construction of current self as a teacher. None of the teachers' ideal self displayed significant change between Time 1 and Time 2. That is, the teachers' construction of current self and ideal self did not reveal significant change. From this argument, we may conclude that they perceive change in themselves. This comment may be validated with the teachers stating that they have developed and their perspectives (both professionally and personally) were affected by the process they have been involved in.

CHAPTER 5

CONCLUSION

5.1 Summary of the Study

In this study, firstly, we have explored the nature of seven EFL teachers' perceived needs for change at the outset of the teacher development program. Later, teachers' (in-service) development and their personal theories of effective language teaching have been dealt with thoroughly. We have adopted a problem-centered approach to teachers' development by helping them set up their own agenda for change. In light of the literature review on "teacher learning and change," we have employed a research process where an action research methodology has been used. The researcher's aim was not only being interested in research findings but also "incorporating these findings as they are constructed ..." (Robertson, 2000, p. 309). A collaborative and qualitative action research model has been used in this study on the basis of Kelly's (1955) personal construct theory as a theoretical and methodological framework.

In this section, we will mention our findings regarding repertory grid data, interviews, teachers' logs, the researcher's diary, observation notes and checklists, and feedback sessions.

The repertory grid, interviews and the observation data obtained from the teachers suggest that both the content and the structure of seven teachers'

personal theories regarding the features that lead to effective language teaching showed significant changes. The changes mentioned in the discussion of findings suggest that the teachers' conceptual changes and behavioural changes were consistent. The changes were dynamic, non-linear, and complex (Sendan, 1995). Teachers' learning and change were not only an individual process but a social process as well. The teachers' conceptual and behavioural changes were not static but active in their nature. However, we should emphasise that both conceptual and behavioural changes were different for every teacher, and did not occur suddenly or in one step. The teachers have moved through the process and changed in their own ways, in their own time, and at their own pace.

Gorodetsky, Keiny and Hoz (1997) state that

People do not always question whether their practice is compatible with or contradicts their way of thinking. Assuming that there is no one-to-one correspondence between the two, it is unlikely that changes in practice will follow immediately from a conceptual change. As they can be nourished from different sources, they may reflect and transmit different epistemologies (Tobin et al., 1992). In fact, similar practice can be embedded in different conceptions and vice versa. (p. 425)

The teachers' learning and change, as mentioned before, were not immediate. The teachers gained experience as they were involved in a process of learning and research. We should be aware of the fact that experience by itself does not lead to learning but reflections on experience is an essential part of learning and subsequent change. Loughran (2002) suggests that

it seems reasonable to assert that how a [...] teacher engages with his or her actions within the practice setting, through reflection on those actions, must shape the possibilities for seeing as a result of experience. Reflection on experience enhances learning through experience such that divergent rather than convergent learning outcomes are encouraged. (p. 35)

5.2 Research Questions and Findings

This study has been carried out at macro and micro levels. The macro aims of this study were to find out answers to the following two questions:

1. how to establish a framework for teacher development within which teachers are encouraged to set up their own agenda for change through a problem-centered approach,
2. how to uncover teachers' perceived needs for change at the outset of a teacher development program.

At the micro level, in order to attain the macro aims of this study, we formed 5 main research questions. We will first discuss the findings for each research question and then the related issues.

Research Question 1: What is the nature of the structure and content of teachers' construct systems regarding the features that lead to effective language teaching at the beginning and end of teacher development program?

The repertory grid data provided by the FOCUS program revealed an effective way for this study to access the constructs used by the teachers. We could easily see the relationship between the constructs of the teachers and the changes which emerged from the first to the second grid administration. Repertory grid data obtained from seven ELT teachers suggest that the teachers' personal theories are "highly idiosyncratic, complex in nature, hierarchically organised in structure, and potentially open to change on the basis of validation or invalidation of the theories put the test" (Pope, 1985 in Sendan, 1995, p. 226). Our repertory grid and interview data obtained from the teachers at Times1 and 2 suggest that both the content and structure of the teachers' personal theories showed notable changes. This result is consistent with Kelly's theory. Because, Kelly's theory provides the repertory grid tool "for investigating the personal and unique process of development of individual teachers" (Ben-Peretz, 1984 p. 104). The teachers, in this study, as other individuals, have their own personal implicit theories of teaching and learning, which are formed by their personal experiences. The teachers' involvement in learning and development process brought inevitable change. This change was quite variable between the teachers. Teachers, as individuals, needed to experience the change personally. Because change was not immediate, not

complete, not at the same level for everybody but open-ended and differed from person to person (Bailey, 1992, p. 254).

The research findings regarding this research question are highly consistent with Kelly's Personal Construct Theory and the previous studies such as Sendan (1995) and Yumru (2000). Furthermore, our findings suggest that the teachers' personal theories in terms of teaching and learning a foreign language include categories of such as; teaching behaviours, personal qualities and academic qualities. Examination of the distribution of constructs in these three categories showed significant differences and changes between sub-groups. The teachers in this study produced more constructs related to teaching behaviours and personal qualities rather than to academic qualities. This result may reveal that teachers working with that age group and level of students in schools are more isolated from academic life. For that reason, they can produce fewer constructs related to academic life.

Apart from the construct categories, the analysis of the teachers' logs also showed the process of change. They provided us insight into how the teachers' input and classroom inquiry processes moved beyond unreflective and uncritical views and practices. Moreover, they demonstrated how classroom inquiry provided teachers "with opportunities to break with conventional wisdom about the nature of practice itself and, in so doing, provided opportunities for them the rethink how they can improve their practice" (Sachs, 1999, p. 42).

The changes in content and structure of personal theories of the teachers and the increase in the number of constructs between Times 1 and 2 revealed that the teachers themselves were involved in a decision-making process and

they became the agent of their own change, rather than just being told or seeing pre-determined solutions for their problems. They undertook a major shift in their personal theories and theories in action. They gained experience in solving their problems and developing their teaching. They recognised their own capabilities as problem solvers, and achieved a feeling of ownership of the projects for their own professional development.

Research Question 2: Are there any conceptual changes in the content of teachers' personal theories regarding the features that lead to effective language teaching due to teacher development program?

With regards to the second research question, we came up with the following conclusions:

- The content analysis of the repertory grid data obtained from the 7 teachers produced a total of 74 constructs at Time 1 and a total of 129 constructs at Time 2. The teachers added in total 55 constructs to their repertoires at Time 2. (see Table 4.18).

The content of the teachers' personal theories showed significant changes. We see that the teachers added 24 new constructs; 12 of which concern teaching behaviours - 3 of which are related to presentation skills, 8 of which are related to management skills, and only 1 related to technical skills. 10 constructs concern personal qualities and 2 constructs concern academic qualities (see Tables 4.18 & 4.19).

- ELT teachers' development is an experience in which willingness for development and readiness for change are "musts." There is no single ideal

model that meets every teacher's or school's needs and interests for development. Moreover, teachers' development should indicate that teachers should be involved in determining their own professional development needs and should be based on the needs of the teachers as perceived by the teachers themselves.

- Teachers' "learning by doing"—as Stallings (1989, pp. 1-2)

indicate try, evaluate, modify, try again- and their involvement in the decision-making process gave them a deeper awareness about teaching and learning. Hence, they become more critical, reflective and experienced. Teachers take the initiative to develop their teaching and naturally became responsible for their own learning. Lange (1990, p. 250) approaches teacher development as a process of "continual, intellectual, experiential, and attitudinal growth" where a bottom up approach is employed. In this study, teachers' development was conceptualised as input and inquiry phases. The teachers linked their prior knowledge to new information in input sessions, and learnt by reflecting on and solving their own problems. The following extracts taken from the teachers' logs are reflections of two of the teachers related to the above issues.

Extract 1

We talked about the types of reflections such as "reflection in action," "reflection on action" and "reflection for action. We see that they are different types of reflections. This session helps me realise what is important to me, what I do when I do things and also why I do the things the way I do. By this, I realised my own success with my students and my way of my teaching and thinking. I think, starting from today, I will (have to) be more realistic and observant. I will observe myself as a

teacher from a teaching perspective in order to set up good relations with my students. (Berna)

Extract 2

We talked about reflection and reflective teaching. Before this session, I just knew the lexical meaning of reflection. I have never thought the deep meaning of it. This was surprising for me. I learned that we could study systematically what we did in the classroom and we could understand things which I sometimes could not explain. I learned that everything we do in the classroom, consciously or unconsciously can be expressed explicitly. Reflection is mirroring of experiences and is a means for improving classroom processes and outcomes. Reflection develops confidence, gives self motivation to teachers and learners. From now and on, I want to take notes about how I behave in the classroom. I have also learned that being a reflective teacher requires self inquiry and critical thinking. I have started to think critically and ask why. (Ibrahim)

- The teachers' involvement in the action research cycle; conceptualising of new knowledge, acting on their identified problems, and challenging their existing thoughts served as an appropriate vehicle for change. The results imply that the teachers' involvement in the program played an organizing role in their thinking system. Each teacher's conceptual change was at different levels. They either restructured their beliefs or rearranged the relations in their existing belief system. Some of the teachers' had strong knowledge, and some of them had weaker knowledge. Naturally, those whose knowledge was strong restructured (in Corey's, 1986 understanding,

"restructuring" involves changes in the concepts themselves) their beliefs and those whose knowledge was less strong were involved in a "process of rearrangement of the relations among existing concepts" (Corey, 1986, in Gorodetsky, Keiny & Hoz, 1997, p. 424).

The patterns of changes in the content of personal theories of the teachers suggest that from the beginning to the end of teacher development program, there has been a gradual expansion in the repertoire of the teachers' constructs due to the process they have been involved in. The nature of the changes is observed mostly in the teaching behaviours of the teachers. Moreover, our findings suggest that there is an increased concern with personal qualities of an effective language teacher. A relatively fewer concerns are observed with academic qualities of the teachers. It is noteworthy to mention that the changes in the content of constructs was notable throughout the program. These findings are highly consistent with prior research suggesting change (Sendan, 1995, Yumru, 2000).

Research Question 3: Are there any conceptual changes in the structure of teachers' personal theories regarding the features that lead to effective language teaching?

Our data suggest that 40 out of 74 Time 1 constructs (54%) of the teachers showed significant structural changes (at 80% level). There is consistency between the content and the structural changes of teachers' constructs. The structural changes of the teachers' constructs correspond to an average of 57% of constructs in the teacher's grid.

Our findings are compatible with Kelly's Personal Construct Theory and the studies conducted by Diamond (1991), Sendan (1995), Christie and Menmuir (1997), Gorodetsky, Keiny and Hoz (1997), Sendan and Roberts (1998) and Yumru (2000).

Drawing on the above stated conclusions regarding the changes in the structure of personal theories of the teachers, we can suggest constructivist learning and its teaching principles. In such learning, teachers are enabled to identify areas for development and change in their own practice. Moreover, they are enabled to inform through in-depth theoretical investigation systematically. They, also, engage to analyse and evaluate their practices in light of their investigation. This process will enable teachers to engage in critical reasoning, to set up a relationship between theory and practice, and to be more aware of their personal theories and theories in action.

ELT teachers' in-service development should lead teachers, "educational changes, through the use of new learning skills and the development of an understanding of the rationale for change" (in Sabri, 1997, p. 114). So, they develop their everyday practices in "reflective and constructive ways," which is a must for a teacher in order to keep up with the professional changes in teaching. Teachers, naturally having different experiences, priorities and starting points, have different knowledge, skills and beliefs about learning and teaching. Most of their knowledge which, we assume, is practical and tacit, and should be uncovered through meaningful, systematic problem-solving approaches through integrating theory and practice as well as reflection (Winkler, 2001).

Our findings regarding this research question are highly consistent with personal construct psychology and the research undertaken by Sendan (1995) who asserts that:

Structural changes observed in individual's grid data were in the form of elaboration, restructuring, and clarification of the existing construct system by means of a cyclical process of consecutive and collateral loosening and tightening of construct associations in the construct subsystems. Furthermore the structural changes were not necessarily caused by new constructs introduced into the existing construct system. In some cases, they were in the form of clarification of the loose construct associations independent of additional constructs. (p. 219)

Our findings support Sendan's suggestions. As mentioned in the first paragraph (of research question 3), the teachers' 40 constructs out of 74 have shown structural changes at the end of the study. If we analyse the changes in terms of construct categories, we may suggest the following issues. Most of the structural changes are observed in construct category A (teaching behaviours) where the teachers added new constructs at Time 2. The teachers' 15 Time 1 constructs have shown structural changes at Time 2. Of the sub-categories, we see that 7 teachers' presentation skill related constructs, 5 teachers' management and 7 teachers' technical skill related constructs have shown structural changes. The second highest number of changes are observed in category B. This category related with the teachers' personal qualities is the second construct category to which the teachers added new constructs at Time 2. The teachers' 15 Time 1 constructs (cited by 18 teachers) have shown structural changes at the end of the study. The least structural change is

observed in category C, academic qualities of teachers. There is only one construct which has shown structural changes at the end of the study and has been cited by 3 teachers. So, we may state that the construct categories that have shown structural changes in this study are teaching behaviours and personal qualities of effective language teachers. The pattern of changes in the structure of personal theories between Time 1 and 2, suggest us that these notable structural changes (not only in Time 1 constructs but also the high priority constructs, and in new constructs of the teachers) occurred in these two categories. The possible causes of these changes might be teachers' clarification of the loose construct associations and/or their new constructs introduced into the existing construct system throughout the program (Sendan, 1995).

Research Question 4: Do teachers demonstrate any behavioural changes within this teacher development program?

Our findings regarding the changes of the teachers' behaviours were the comparison of their repertory grid data, the observation notes, and observation checklists. The teachers' class right after the repertory grid administrations at Times 1 and 2 were observed through observation note and checklist sheets as data. The researcher produced observation checklists and observation notes adopted from the teachers' repertory grid sheets. These tools helped to see the teachers' personal theories and decisions in actions. These data suggest that most of the constructs of the teachers' were observed in classes except high

inference constructs such as; experienced/inexperienced, open to change/close to change.

Our findings are also consistent with constructivist principles which suggest that learner's construction and reconstruction of new knowledge facilitate approaches to behavioural change. Moreover, the findings of this study are consistent with Kolb's (1984) experiential learning cycle which was used in a wide range of context; such as learning, and behavioural change. Kolb thought of learning as an ongoing process—a continuous series of cycles. Learner's personal beliefs influence the world they live in, and how they organise and interpret what they know. It is more than the communication of knowledge, but absorbing ideas, assimilating them into the pre-existing knowledge, understanding more complex situations, and behaving accordingly. Behavioural change is not linear; it is complex, and non-linear.

Teachers' change, in this study, was in a process in which they went through a process of determining, contemplating, and revising their personal beliefs. The process of change they were involved in was the result of their experiences and the restructuring and reconstruction of their personal beliefs. It was neither sudden nor completed.

Research Question 5: Are the conceptual changes of teachers compatible with the behavioural changes?

Our findings regarding the compatibility of the teachers' conceptual changes with their behavioural changes suggest that there is consistency between the teachers' conceptual changes and the behavioural changes in this

study. We explored the conceptual changes and its relation to changes in their behaviours. The teachers' conceptual change process was interpreted in their actual behaviours in their classes. This was in line with the literature, saying that "conceptions can be inferred from practice (actions) and practice can derive from conceptions" (Gorodetsky, Keiny & Hoz, 1997, p. 425).

The teachers' personal theories developed and this development in their repertoire and hypotheses influenced some of their actual behaviours naturally. Moreover, the change in their content and structure of personal theories contributed to their knowledge. This led them to make practical attempts to try and become aware of their personal theories in their teaching behaviours. We may gather from this study that when the teachers began to analyse their teaching and felt a need for change, they tended to conduct the studies and to analyze their actual teaching, becoming more critical and reflective rather than resistant to change.

The following extract taken from Ebru's action research project shows her initiation and reflections on the above mentioned issues.

Extract 3

I believe that the most amazing transformations in my thinking are occurring because of my action research and the reflective practices. I have confidence in myself, even in the occurrence of failure. My growth in confidence is giving me an improved ability to explore and "test" my own beliefs and practices. I am trying to explore my "self". This is exciting.

As a result of the action research, I have identified the following professional development goals:

- to continue to build confidence and competence, so as to enrich the students in my class,
- to seek resources that help to better my teaching practice,
- to take risks in my future classrooms and build from these successes and failures.

When we first asked the teachers, at the very beginning of the program, "why they want to be involved in that program," the answers began with "I want to change my ..." or "I want to improve my" So, the answers may show us that the teachers became volunteers in order to improve their construction system, personal theories about teaching and learning. In short, they sought to improve their professional practices and to change their personal thinking. The above mentioned issues are consistent with Kelly's (1955) corollaries. The teachers had construct systems. That is, their personal theories were not in isolation but were hierarchically grouped (organisation corollary) (see their Time 1 and 2 repertory grids, particularly the clusters). The teachers' construction system varied (experience corollary) as they successively construed the replication of events (see, particularly, their Time 2 grids). While they construed the events, their personal theories differed in their focus, range and permeability. Even the position of the constructs within their "whole-person system" (Pope, 1985) and the "strength of the constructs' relationships with other parts of the system" (Pope, 1985) changed (modulation corollary) (see interpretation of repertory grid analysis). Besides, they tested new hypotheses without eliminating their constructs. During this process, they, to some extent, tolerated some incompatibility of the constructs. That is, the permeability of the constructs which were incompatible with the already existing belief system,

were tolerated (fragmentation corollary). This toleration was depended on the permeability of their superordinate constructs.

5.3 Implications of the Study

Our research would be much better if it could have been conducted with more teachers in order to gain access to more data. In this section, we will present the implications and the findings of our study.

A. Methodological Perspective

The repertory grid, one of the most popular indirect knowledge acquisition techniques, was used as a research and learning tool in this study. It enabled us to explore the 7 ELT teachers' personal construct systems and their organisation in order to understand the world of meaning in which they live in through relatively little imposition and manipulation of the researcher's own construction of the issues.

The repertoire of each teacher's personal construct was accessed through triadic elicitation technique. Each teacher's constructs were elicited individually. We avoided group elicitation in order to gain more objective data. We have adopted the repertory grid procedures used by Sendan (1995).

We benefited from this using repertory grid. It was consistent with the nature of theory and methodology adopted in this study. Using a repertory grid and applying constructivist principles are highly compatible with the notion of teacher development. Fung (2000, p. 154) sees constructivist approach as "the

best way to demonstrate to teachers how classroom processes could be organised” Moreover Harper et al. (2000) suggest that constructivism for many teachers offers far more “scope in realising the possible learning benefits of using information.”

Our findings reveal that interviews after the repertory grid sessions, classroom observations and giving feedback, and keeping learning logs contributed to the change process in the teachers’ conceptions. So, they became more reflective teachers.

B. The Teacher Development Program Perspective

- Action research provided 7 ELT teachers with the opportunity to gain knowledge and skill through an in-service development program which involves input and classroom inquiry sessions. They became more aware of collaborative learning and they took ownership for change. Through participating in the action research cycle, the teachers became more critical and reflective about their own practices. The collaborative learning environment encouraged commitment and support of the teachers.

- Teacher development programs, as in this study, are better if each teachers’ starting points, strengths and weaknesses, interests and concerns are identified through needs analysis; so the content of the program is determined accordingly. We suggest that teachers can take personal responsibility for their own professional development in their own way and at their own pace.

- The identified problems of the teachers and the probable solutions as well as the content of the program was unique to this group of teachers. Replications of the study with ELT teachers may contribute to an overall picture of ELT teachers' thinking and beliefs and their development.
- We suggest that a bottom-up approach best suits the needs of ELT teachers' in-service development. The teachers' learning and self inquiry resulted in rich knowledge about teaching and inquiry. So, the teachers became the agents of their own change.

5.4 Suggestions for Further Research

Firstly, our repertory grid and interview data obtained from the teachers between Time 1 and Time 2 suggest that teachers learning and change, which was desired, was highly variable among teachers, complex in interpretation, not immediate, not complete, not at the same level, but open-ended and continuous. Therefore, ELT teachers' development should not be viewed as training them for pre-determined problems with ready-made solutions by an outsider. The future programs should consider each teacher as in Kelly's analogy "man-the scientist" (Kelly, 1955), and a "unique member whose problems may show similarities with or different from his/her colleagues." In particular, teachers' learning and change should first aim at the needs and interests of each teacher by taking into account their starting points and priorities.

Secondly, teacher development programs should make participation voluntary and encourage wider involvement of teachers. It may be more

productive to run such programs in all schools or by establishing centers/institutions within the local Ministry of Education structures. Our experience throughout the program suggest that although most of the ELT teachers were volunteers, their poor working conditions did not allow for more active participation. Such programs should provide professional support (e.g., an award for their active participation).

Thirdly, our study contains implications not only for ELT teachers' personal and professional development but also for the teachers from other disciplines.

Other areas of investigation might include researching the following issues.

1. Our study's general framework will contribute to curriculum development. Managing "curriculum maintenance" (Day, 1990) contributes to development of teachers' decisions, their thinking and belief which are mostly determined by the authorities.
2. The program can be run with more than one researcher. In doing so, the classroom atmosphere and students' thinking can be taken into consideration. Thus, the changes in the structure of the teachers' personal theories can be compared with students.
3. To what extent the materials used in the program were efficient and consistent with the aim of the study can be adopted as an area for further research.
4. While looking into the changes in teachers' personal theories, their school culture and/or gender and/or experiences can be taken into consideration in further research.

5. A follow up study may be conducted in order to see whether or not the teachers in this study put the theories gained into action.

5.5 The Researcher's Personal Reflections

The following extracts taken from the researcher's diary reflect the process she has been involved in.

The reflections of teachers in their logs were all consistent with what I aimed for at the beginning of this study. I was aiming to create a discussion atmosphere in which all the teachers could have a chance of speaking about their own problems.

1. The materials chosen helped me triangulate the needs of teachers revealed through the teachers' first repertory grid analysis. Teachers' elicited constructs and their ratings for self as teacher revealed the needs of each teacher's problem areas. Other research tools helped the teachers to review the questions and probable problems. This helped the teachers to see the questions as a whole and decide which ones were felt needs for them.

2. The teachers were eager and they volunteered to express their feelings and their experiences. These discussions created an atmosphere in which they understood that all had experienced more or less similar things and no one was alone. The question guide was shown on an OHP. Using an OHP was another new experience for the teachers. The teachers had not used OHP before. Each teacher had the chance to see how to operate an OHP. They then decided to use it in their own classrooms.

3. The teachers have collaborated as a group, based on mutual respect towards different ideas and views in the sessions. I tried to underline a

strong point of respecting the ideas and experiences of the teachers and not impose ideas, or meaning. I must confess that this does not mean that there was not marked differences in the roles of the teachers and the researcher. However this does not have negative connotations. It is precisely the fact of having different roles that makes collaboration possible and richer. There was a considerable respect both for me and the program.

4. Throughout the teachers' classroom inquiry process, to be honest, I sometimes felt challenged. I got confused when the procedures which I totally believed to be effective sometimes turned out to be useless and not beneficial. I was a novice; I was "learning by doing." The greatest difficulty I felt was to clarify the teachers' focus areas. The procedure lasted a very long time and was very tiring. Some of the procedures were either not clear regarding the problems or the framework to be covered or were too broad. I had to seek for different tactics, activities or guides. I began to consider other strategies dealing with information, instructions and preparation for practical work and to seek materials to apply to the problem. This surprise led me to rethink and reflect on the issues covered, such as: what I did, what else could be done, and why it did not work well. As a result, I had to refine my ideas and beliefs and the materials employed.

The Researcher's Personal Reflections on the Whole Program

I believe that my experiences led me to become more aware of my personal knowledge and beliefs, my strengths and weaknesses. I tried to become more critical towards my approach, my roles, and tried to engage in

more systematic reflection. I have become very conscious of my roles as a researcher and a facilitator.

Another thing I gained is that I was learning by doing, learning how to run a program and what else could be put into practice for furthering the program. One of the most important things I learnt was that the duration of the program could be longer. Moreover, I personally felt that I became more patient and tolerant towards learners. This process helped me learn how to overcome problems and to become a constructivist learner and teacher as well as satisfying my thirst for knowledge.



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Appendix 1

Questions about your teaching

1. What did you set out to teach?
2. Were you able to accomplish your goals?
3. What teaching materials did you use? How effective were they?
4. What techniques did you use?
5. What grouping arrangements did you use?
6. Was your lesson teacher dominated?
7. What kind of teacher-student interaction occurred?
8. Did anything amusing or unusual occur?
9. Did you have any problems with the lesson?
10. Did you do anything differently than usual?
11. What kinds of decision making did you employ?
12. Did you depart from your lesson plan? If so, why? Did the change make things better or worse?
13. What was the main accomplishment of the lesson?
14. Which parts of the lesson were most successful?
15. Which parts of the lesson were least successful?
16. Would you teach the lesson differently if you taught it again?
17. Was your philosophy of teaching reflected in the lesson?
18. Did you discover anything new about your teaching?
19. What changes do you think you should make in your teaching?

Questions about the students

1. Did you teach all your students today?
2. Did students contribute actively to the lesson?
3. How did you respond to different students' needs?
4. Were students challenged by the lesson?
5. What do you think students really learned from the lesson?
6. What did they like most about the lesson?
7. What didn't they respond well to?

Questions to ask yourself as a language teacher

1. What is the source of my ideas about language teaching?
2. Where am I in my professional development?
3. How am I developing as a language teacher?
4. What are my strengths as a language teacher?
5. What are my limitations at present?
6. Are there any contradictions in my teaching?
7. How can I improve my language teaching?
8. How am I helping my students?
9. What satisfaction does language teaching give me?

Appendix 2

Interviewee:Class:Date:Category:No.:

No. of Constructs	Emergent Constructs (Similarities)	Rating Scale										Implicit Constructs (Contrasts)					
		1			2			3			4			5			
		E1	E2	E3	T1	T2	T3	I1	I2	I3	Self		Ideal				
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	

Rank Order: 1.

2.

3.

4.

5.

Appendix 3

Participant's Name:
Date of Observation:

Observation Number:
Hour:

OBSERVATION CHECKLIST

EMERGENT CONSTRUCTS (SIMILARITIES)	1 - 2 - 3 - 4 - 5 ◀ ▶	IMPLICIT CONSTRUCTS (CONTRASTS)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

RANK ORDER OF CONSTRUCTS: 1. 2. 3. 4. 5.

Appendix 3

Participant's Name:

Observation Number:

Date of Observation:

Hour:

OBSERVATION NOTES

EMERGENT CONSTRUCTS (SIMILARITIES)	DURING OBSERVATION	IMPLICIT CONSTRUCTS (CONTRASTS)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

RANK ORDER OF CONSTRUCTS: 1. 2. 3. 4. 5.

Appendix 4**LEARNING LOG****Name:****Session:****Date:** / /**1. What was the activity/experience/topic of the session?****2. Write a detailed account of what you found significant in the session.****3. After the activity, what did you learn from the activity/experience/topic?**

4. Would you like to change anything about the procedure of the session? If so, what?

5. Is what you learnt applicable in any phase of your teaching?



6. What plan do you need to carry your learning forward?

Appendix 5

Interview Schedule

1. Why do you think these five constructs are more important than others in terms of effectiveness in teaching?
2. Can you please comment on your preferred construct poles? Why are they more effective in teaching than the opposite poles?
3. Here is your processed grid; based on your ratings, computer has grouped together constructs and elements that are similar. Do you see any relation between the constructs in this group (cluster)?
4. When we look at element trees, you seem to identify yourself more with teachers than with Can you comment on this? In what ways do you think you are more similar to teachers and different from teachers?
5. In your previous grid, you grouped construct # ... with constructs # ..., ..., and ...; and now you seem to have grouped it with a different set of constructs. Do you think it is more appropriate to group it this way? Why? Can you recall any specific experience related to this issue?
6. Why do you think it was necessary to add/modify these constructs? Can you think of any specific experience which may have contributed to changes in your thinking?
7. You have changed your ratings on some of the constructs, such as # ..., ..., and Why? Do you now think that some of these constructs should not really be associated with effectiveness in teaching? Any specific reasons?
8. Why did you change your mind about the five most important (rank-ordered) constructs? Why is construct # ... more/less important (for effectiveness in teaching) now than it used to be? Can this be related to any specific experience you had during teaching practice?
9. Are there any specific teaching practice experiences or incidents that surprised you or caught your attention? If so, can you comment on your feelings, thoughts and reactions to those events and experiences?
10. Have you experienced any contradictions or dilemmas in your teaching practice lessons? What were they? How did you cope with (or resolve) these dilemmas?

Appendix 6

TEXT OUTPUTS CORRESPONDING TO HÜLYA'S PROCESSED GRIDS

Exchange Analysis of 2 grids

Grid	E	C	
* G1	11	18	hülya2focus.
* G2	11	11	hülya1focus
	11	11	Common Elements & Common Constructs

G1:G2 36.4% over 80.0 (hülya2focus. Element-consensus-with hülya1focus)

1:	9.1% $\geq$ 100.0	E11: ideal
2:	81.8	E2: e2
3:	81.8	E3: e3
4:	36.4% $\geq$ 81.8	E7: i1
5:	45.5% $\geq$ 79.5	E9: i3
6:	77.3	E6: t3
7:	63.6% $\geq$ 77.3	E10: self
8:	72.7% $\geq$ 72.7	E1: e1
9:	68.2	E4: t1
10:	90.9% $\geq$ 68.2	E5: t2
11:	100.0% $\geq$ 61.4	E8: i2

Element Links between Grids

G1:G2 36.4% over 80.0 (hülya2focus. Element-consensus-with hülya1focus)

G1:G2 36.4% over 80.0 (hülya2focus. construct-consensus-with hülya1focus)

1:	90.9	C4: gives importance to listening - does not care listening
2:	18.2% $\geq$ 90.9	C11: starts directly with new subject - revises the previous lesson at the beginning of ea
3:	27.3% $\geq$ 86.4	C2: does not attract ss attention - attracts ss attention
4:	36.4% $\geq$ 81.8	C3: ss are lost - makes ss aware of subject
5:	45.5% $\geq$ 77.3	C7: uses limited exercises for ss understanding - gives extra examples for ss better understanding
6:	75.0	C5: does not consider ss needs - considers ss needs
7:	63.6% $\geq$ 75.0	C6: does not consider ss level of English - simplifies the subject for ss better understanding
8:	72.7% $\geq$ 72.7	C10: does not use body language - uses body language
9:	81.8% $\geq$ 70.5	C8: uses only coursebook - uses extra materials
10:	90.9% $\geq$ 65.9	C1: uses drama in lesson - does not use drama in lesson
11:	100.0% $\geq$ 63.6	C9: shows films related to subject - has monotonous teaching

Construct Links between Grids

G1:G2 36.4% over 80.0 (hülya2focus. construct-consensus-with hülya1focus)

HULYA TIME 1 GRID

FOCUS Calculation 27-Aug-56 12:44:18

FOCUS Output 27-Aug-56 12:44:18

Element Matches

	*	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11

E1	*	100	84	64	70	73	66	52	61	64	82	64
E2	*	84	100	80	73	70	59	41	55	52	93	75
E3	*	64	80	100	66	59	48	34	43	41	82	86
E4	*	70	73	66	100	84	82	55	59	66	80	52
E5	*	73	70	59	84	100	89	61	70	77	77	45
E6	*	66	59	48	82	89	100	59	68	80	66	34
E7	*	52	41	34	55	61	59	100	77	75	48	25
E8	*	61	55	43	59	70	68	77	100	75	61	43
E9	*	64	52	41	66	77	80	75	75	100	59	27
E10	*	82	93	82	80	77	66	48	61	59	100	68
E11	*	64	75	86	52	45	34	25	43	27	68	100

Construct Matches

	*	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11

R1	*	100	52	57	82	52	52	66	59	82	55	57
R2	*	52	100	91	39	86	82	77	75	61	84	82
R3	*	57	91	100	43	91	86	77	70	61	84	86
R4	*	82	39	43	100	39	48	57	55	73	45	48
R5	*	52	86	91	39	100	91	77	66	66	89	86
R6	*	52	82	86	48	91	100	82	66	66	93	91
R7	*	66	77	77	57	77	82	100	75	66	80	86
R8	*	59	75	70	55	66	66	75	100	55	68	70
R9	*	82	61	61	73	66	66	66	55	100	68	66
R10	*	55	84	84	45	89	93	80	68	68	100	89
R11	*	57	82	86	48	86	91	86	70	66	89	100

	*	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11

R1	*	50	75	75	45	75	84	84	68	59	82	80
R2	*	75	45	45	89	41	50	59	57	70	48	50
R3	*	75	45	45	84	41	50	59	57	66	48	50
R4	*	45	89	84	32	84	80	70	73	59	82	75
R5	*	75	41	41	84	36	45	55	61	61	43	45
R6	*	84	50	50	80	45	45	59	66	66	48	50
R7	*	84	59	59	70	55	59	64	61	84	61	64
R8	*	68	57	57	73	61	66	61	41	82	59	61
R9	*	59	70	66	59	61	66	84	82	59	68	70
R10	*	82	48	48	82	43	48	61	59	68	50	52
R11	*	80	50	50	75	45	50	64	61	70	52	55

Element Links

E2 linked to E10 at 93.2
 E5 linked to E6 at 88.6
 E3 linked to E11 at 86.4
 E1 linked to E2 at 84.1
 E4 linked to E5 at 84.1
 E3 linked to E10 at 81.8
 E6 linked to E9 at 79.5
 E7 linked to E8 at 77.3
 E7 linked to E9 at 75.0
 E1 linked to E4 at 70.5

Construct Links

R6 linked to R10 at 93.2
R2 linked to R3 at 90.9
R3 linked to R5 at 90.9
R5 linked to R6 at 90.9
R2 linked to L4 at 88.6
R10 linked to R11 at 88.6

R7 linked to R11 at 86.4
L1 linked to R7 at 84.1
L1 linked to L9 at 81.8
R8 linked to L9 at 81.8



HULYA TIME 2 GRID
 FOCUS Calculation 27-Aug-56 12:40:12
 FOCUS Output 27-Aug-56 12:40:12

Element Matches

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11
E1	100	92	89	54	65	58	33	43	18	83	90
E2	92	100	86	57	68	58	33	43	21	81	88
E3	89	86	100	57	71	61	39	46	21	86	88
E4	54	57	57	100	83	68	71	64	64	54	44
E5	65	68	71	83	100	76	60	67	50	68	58
E6	58	58	61	68	76	100	64	82	51	61	49
E7	33	33	39	71	60	64	100	74	82	39	26
E8	43	43	46	64	67	82	74	100	67	46	33
E9	18	21	21	64	50	51	82	67	100	21	8
E10	83	81	86	54	68	61	39	46	21	100	88
E11	90	88	88	44	58	49	26	33	8	88	100

Construct Matches

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18
R1	100	36	41	84	34	39	45	41	75	39	36	36	93	34	89	41	36	73
R2	36	100	82	25	80	80	73	77	34	89	77	91	34	80	30	82	86	36
R3	41	82	100	39	89	93	86	73	48	70	86	86	48	84	43	82	86	41
R4	84	25	39	100	36	41	48	34	86	27	34	34	86	36	91	39	30	61
R5	34	80	89	36	100	91	84	70	45	68	84	80	41	91	36	80	84	34
R6	39	80	93	41	91	100	89	70	50	68	84	80	45	91	41	84	80	39
R7	45	73	86	48	84	89	100	77	52	70	86	82	52	89	48	86	82	50
R8	41	77	73	34	70	70	77	100	39	75	77	77	43	80	39	64	82	50
R9	75	34	48	86	45	50	52	39	100	36	39	43	77	41	82	48	34	57
R10	39	89	70	27	68	68	70	75	36	100	70	84	36	68	32	84	80	43
R11	36	77	86	34	84	84	86	77	39	70	100	77	43	89	39	82	82	45
R12	36	91	86	34	80	80	82	77	43	84	77	100	43	80	39	82	86	41
R13	93	34	48	86	41	45	52	43	77	36	43	43	100	41	91	43	39	75
R14	34	80	84	36	91	91	89	80	41	68	89	80	41	100	36	80	84	43
R15	89	30	43	91	36	41	48	39	82	32	39	39	91	36	100	39	34	70
R16	41	82	82	39	80	84	86	64	48	84	82	82	43	80	39	100	77	41
R17	36	86	86	30	84	80	82	82	34	80	82	86	39	84	34	77	100	50
R18	73	36	41	61	34	39	50	50	57	43	45	41	75	43	70	41	50	100

	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18
R1	36	82	86	39	89	89	91	73	43	75	86	86	43	89	39	86	86	45
R2	82	18	36	89	34	39	45	36	80	20	36	27	84	39	89	32	27	73
R3	86	36	36	80	30	34	45	45	70	39	41	41	84	39	89	41	36	77
R4	39	89	80	32	77	73	80	80	36	86	75	93	41	77	36	80	93	48
R5	89	34	30	77	23	27	39	43	68	41	30	34	82	27	86	34	34	75
R6	89	39	34	73	27	32	43	48	68	41	39	39	82	36	82	39	39	80
R7	91	45	45	80	39	43	55	50	75	48	45	45	89	43	84	50	45	73
R8	73	36	45	80	43	48	50	36	89	39	36	41	75	39	80	50	32	59
R9	43	80	70	36	68	68	75	89	41	77	70	84	45	77	41	66	80	48
R10	75	20	39	86	41	41	48	39	77	23	39	30	82	41	77	34	30	66
R11	86	36	41	75	30	39	45	36	70	39	36	41	89	34	84	45	32	73
R12	86	27	41	93	34	39	45	41	84	30	41	36	89	39	93	36	32	68
R13	43	84	84	41	82	82	89	75	45	82	89	89	50	82	45	89	84	48
R14	89	39	39	77	27	36	43	39	77	41	34	39	82	32	86	43	34	70
R15	39	89	89	36	86	82	84	80	41	77	84	93	45	86	41	80	93	43
R16	86	32	41	80	34	39	50	50	66	34	45	36	89	43	80	36	41	82
R17	86	27	36	93	34	39	45	32	80	30	32	32	84	34	93	41	27	64
R18	45	73	77	48	75	80	73	59	48	66	73	68	48	70	43	82	64	27

Element Links

E1	linked to	E2	at	91.7
E1	linked to	E11	at	90.3
E3	linked to	E11	at	87.5
E3	linked to	E10	at	86.1
E4	linked to	E5	at	83.3

E6	linked to	E8	at	81.9
E7	linked to	E9	at	81.9
E5	linked to	E6	at	76.4
E7	linked to	E8	at	73.6
E2	linked to	E4	at	56.9

Construct Links

L1	linked to	L13	at	93.2
R3	linked to	R6	at	93.2
L4	linked to	R12	at	93.2
L4	linked to	R17	at	93.2
R12	linked to	L15	at	93.2
L1	linked to	R7	at	90.9
R5	linked to	R6	at	90.9
R5	linked to	R14	at	90.9
L13	linked to	L15	at	90.9
R2	linked to	R10	at	88.6
R7	linked to	R14	at	88.6
R8	linked to	L9	at	88.6
R2	linked to	R17	at	86.4
R3	linked to	R11	at	86.4
R10	linked to	R16	at	84.1
R16	linked to	L18	at	81.8
R8	linked to	R11	at	77.3

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