

**EXPLORING STUDENTS' ATTITUDES TOWARD MOTIVATION,
SATISFACTION, AND PERCEIVED LEARNING OUTCOMES USING
ONLINE FEEDBACK IN WRITING ARGUMENTATIVE ESSAY**

by

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ONLINE FEEDBACK IN WRITING ARGUMENTATIVE ESSAY**

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ABSTRACT

Online peer feedback is implemented to help students learn how to write argumentative essays better, especially in large online classes where teachers cannot provide one-on-one feedback due to workload. Considering on the literature, students' motivation and satisfaction can affect their learning outcomes in many aspects. However, there is limited information on how motivation and happiness are affected by online peer feedback. This study investigates students attitude toward motivation, satisfaction, and perceived learning outcomes in an online peer feedback environment in the context of argumentative essay writing. 41 graduate students from Wageningen University participated in an online module for writing argumentative essays. Students were invited to complete surveys about their motivation, satisfaction, and level of perceived learning. This study's results showed the high level of motivation and satisfaction with perceived learning outcomes in an online peer feedback environment.

Key words: argumentative essay, motivation, online peer feedback, perceived learning outcome, satisfaction

ÖZ

Etkili bir öğretim stratejisi olarak akran geri bildirim raporları, özellikle öğretmenlerin iş yükü nedeniyle bire bir geri bildirim sağlayamadığı kalabalık sınıflardaki çevrimiçi öğrenme ortamlarında öğrencilerin tartışma yazısı yazmalarını geliştirmek için kullanılmıştır. Öğrencilerin motivasyonu ve memnuniyeti, algılanan öğrenmelerini etkileyebilmektedir. Bununla birlikte, çevrimiçi akran geribildirimi bağlamında motivasyon ve memnuniyetin ne tür bir rol oynadığı hakkında çok az şey bilinmektedir. Bu çalışma, çevrimiçi bir akran geri bildirim ortamında algılanan öğrenme, öğrencilerin motivasyonu ve memnuniyet düzeylerini belirlemeyi amaçlamaktadır. Wageningen üniversitesinde yüksek lisans eğitimi alan (N= 41) öğrenciler Tartışma kompozisyonu yazmak için çevrimiçi bir akran geribildirim çevrimiçi öğrenme ortamına dahil oldular. Sürecin sonunda öğrencilerden motivasyonları, memnuniyetleri ve algılanan öğrenme ile ilgili düşüncelerine dair anketleri doldurmaları istendi. Sonuçlar incelendiğinde, tartışma kompozisyon bağlamında çevrimiçi bir akran geri bildirim ortamında öğrencilerin motivasyon düzeyleri, algıladıkları öğrenme ve memnuniyetlerinin yüksek bir oranda olduğu belirlenmiştir.

Anahtar Sözcükler: algılanan öğrenme, çevrimiçi akran geribildirimi, memnuniyet, motivasyon, tartışmacı makale yazma

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List of Abbreviations

AI	Artificial Intelligence
E-learning	Electronic Learning
EFL	English as a Foreign Language
ESL	English as a Second Language
CALL	Computer-Assisted Language Learning
CBA	Computer-Based Assessments
LMS	Learning Management System

CHAPTER 1

The first chapter contains the introduction of the study, the background, the problem statement, the research questions, the significance of the study, and the definition of significant terms.

1. Introduction

Peer feedback in online learning environments offers an excellent opportunity for deep learning through engaging students in a high-cognitive process in a collaborative learning context, mainly where students evaluate the work of their peers critically and suggest recommendations for learning improvement in education (Carless & Boud, 2018; Noroozi & Hatami, 2019; Noroozi et al., 2016). Prior studies report that peer feedback contributes to students' learning outcome, level of engagement, and motivation (e.g., Gielen et al., 2010; Pratama & Arriyani, 2021; Zhang et al., 2014). On the other hand, there is a lack of information regarding learning motivation, satisfaction with learning and perceived learning levels associated with (online) peer feedback.

Argumentation is considered a critical skill for students (Prata et al., 2019), and usually, student practice this skill by writing an argumentative essay (Liunokas, 2020). It is utilized to enhance higher education students regarding argumentative essay writing, and prior studies confirm its effect on elevating students' argumentation competence in the writing essays. (e.g., Latifi & Noroozi, 2021; Latifi et al., 2021). Although it was indicated that online peer feedback was an effective educational approach to increase the quality of students' essays in class, there are very few studies investigating how students' motivation, satisfaction, and perceptions of their learning change while participating in

online learning activities. This research investigates the motivation, satisfaction, and perceived learning levels of students when writing argumentative essays using online peer feedback activities.

1.1. Background of the Study

This academic study aims to investigate the student's perspectives on their levels of motivation, satisfaction, and perceived learning through the usefulness of online peer feedback while writing argumentative essays. Even though studies have exhibited that online peer feedback systems benefit students (for example, O'Neill, Boyce, and McLarnon, 2020), we still have a lot to learn about how students feel about online feedback tools. By investigating how students use peer feedback systems and develop teamwork abilities, our research contributes to the existing literature on the topic of peer feedback systems.

Even though an excess of research has been done on the link between feedback and academic success, we still don't know how online peer feedback affects both student satisfaction and academic motivation at the exact time in higher education. This study is necessary because it fills in that gap. There are scant empirical data concerning the link between these two influential qualities and students' perceived learning outcomes in online peer feedback systems. Therefore, it is worthwhile to investigate the relationship between these variables.

For many educators, particularly those who live new to the academic, one of the most daunting tasks they contain is instructing students on how to organise controversial essays. This is due to the belief that writing essays promote high level thinking (Smith et al., 1999) While several recent studies have highlighted the importance of the teacher in

writing a permissible argumentative essay, the function of motivation and satisfaction as internal elements in writing a high-quality argumentative essay has been overlooked.

Before the coronavirus pandemic, students acknowledge computer-mediated tools such as Google Docs for online project collaboration to email, instant messaging, and instant messaging (Conole et al. 2008). One of the most studied aspects of educational psychology is motivation since it has an immediate impact on a medley of educational outcomes, such as student perseverance, well-being, and academic success, all of which can be particularly difficult in an online educational setting. Recent studies have exhibited that intrinsic student motivation significantly improves students' social competencies, interpersonal abilities, and academic performance over the long term.

Developing and creating digital learning modules that give students delightful learning options is one potential method that can be utilized to boost student motivation to participate in digital learning modules that live incorporated into traditional courses. According to (Bayerlein 2014) and other research, receiving feedback from learning peers who hold similar motivational goals and delivering feedback to learning peers in a reciprocal manner are both fundamental elements of the learning process. (Crisp 2007).

Understanding how students feel about the nature of feedback systems is always the next important step that lives necessary for their success in higher education. Additionally, there is a strong belief that, established on the principle of procedural fairness, the incorporation of feedback systems alongside teamwork exercises is a productive approach to providing students with helpful and actionable feedback.

Peer feedback system boosts students' perceptions of learning. (O'Neill, Boyce, and McLarnon, 2020), which may have a positive effect on their attitudes toward peer feedback.

In an online learning setting, students can turn in their work, review the result of their learning peers, and make changes to their work at all time (Lin, Liu, and Yuan, 2001). In a paper-based learning environment and too face-to-face situations, there are fewer chances to enhance the overall quality of the peer feedback process (Mostert & Snowball, 2013). Students can rebuild their ideas while coming up with and organizing new opinions and opinions with the help of online peer feedback. They can also examine the discussion history to re-read notes and feedback that other students contain conveyed.

1.2. Statement of the Problem

Writing an adequately argumentative essay is a common requirement for college courses (Mei, 2006). how essay assignments are incredibly typical in higher education, many teachers are unhappy with the quality of their students' writing (Noroozi et al., 2016; Noroozi et al., 2018). This is especially true for argumentative essays (Kellogg & Whiteford, 2009).

Writing such essays for argumentation assignments is a common source of stress for college students (see Noroozi & Hatami (2018)(Wingate, 2012). Students seldom make use of these argumentation tactics in their essays. It's possible that a variety of things, including in the first place, some students lack the necessary background information to recognize the qualities of a strong essay (Bacha, 2010). The second step, even if students are aware of these features, they find it challenging to use them while writing argumentative essays (Noroozi et al., 2013; Valero et al., 2019). (Noroozi et al., 2013;

Valero et al., 2019). Third Students' low levels of motivation, disinterest, performance in class, and perceived learning is also a factor in students' overall satisfaction with online education. High attrition rates in online courses have been linked to a lack of student enthusiasm (Muilenburg & Berge, 2005). Therefore, there are several reasons why students have a negative impression of online education.

Despite this, several researchers have pointed out that the old pedagogical practices that do not work in online classrooms have not altered despite the proliferation of online learning in higher education, which presents a challenge for instructors (Baran, Correia, & Thompson, 2011). Students might greatly benefit from online peer feedback activities to enhance their writing and understanding of argumentative essays. Based on the findings of empirical studies, it appears that the asynchronous interaction typical of e-learning environments needs a reorganization of essential roles between the instructor and students to skillfully facilitate students' active engagement in the formative peer feedback processes. (Van der Pol et al., 2008; Vonderwell, Liang, & Alderman, 2007). Palloff & Pratt (2007) elaborated on the benefits of collaborative learning for students, noting that they may "expand and deepen their learning experiences, try out new ideas by sharing them within a supportive group, and receive critical and constructive feedback" These authors argue that it might be beneficial for teachers to create online classrooms that foster students' meaningful participation in collaborative group projects. Students can learn from their mistakes and grow as learners if life is supplied with constructive formative feedback that promotes active and self-regulated study (Gikandi et al., 2011).

Today, many online classrooms encourage students to provide and receive comments from their peers. Students can submit their writings and anonymously and reciprocally

supply feedback on the work of their classmates in these kinds of situations that aren't constrained by time or geography (Lin et al., 2001; Noroozi et al., 2016); Tsai et al., 2002; R. Yang et al., 2011). Because online peer evaluation may be sent more rapidly, it facilitates more student reflection on their personal and others' work (Chen & Tai, 2009). (Corgan et al., 2004). These online settings have the most to offer in terms of incorporating instructional tools (such as scripting and assistance) that encourage pupils to provide more suitable responses to their classmates (Noroozi et al., 2011).

Students' intentions are directed by contentious feedback writing in presenting their position on the issue, defending it, considering and weighing arguments and counterarguments, acknowledging perspectives and also qualifiers, responding to the various counterarguments, and finally reaching a suitable conclusion on the issue at the end(see Kuhn, 1991; Toulmin, 1958).

This study examines the role of online peer feedback on students' motivation, satisfaction, and learning outcomes, such as their ability to write argumentative essays. Furthermore, the results of this study present an opportunity for insight into students' perceptions of the usefulness of an online peer feedback system. Prior research has examined the generally beneficial influence of online peer review in online environments, exactly, the role of online peer feedback in student motivation and satisfaction has yet to be determined. Similarly, the matter of perceived learning as a pivotal component in online learning environments, to its role in real education from the observatory of students, has not been explained. As a result of this, the purpose of this research was to assess the levels of motivation, satisfaction, and perceived learning in students who received feedback.

1.3. Research Questions

The validity of online peer feedback was demonstrated to be an excellent important technique for enhancing students' essays, despite safeguarding a fundamental shortage of research on students' motivation, satisfaction, and perceived learning with this form of online learning feedback setting. As a result, this study explores the students' attitudes toward satisfaction, motivation, and perceived learning using an online peer feedback environment. To investigate these variables, the following study questions are established and answered:

1. What is the level of students' satisfaction with online peer feedback in the argumentative essay writing environment?
2. What is the level of students' motivation with online peer feedback in the argumentative essay writing environment?
3. What is the level of students' perceived learning with online peer feedback in the argumentative essay writing environment?

1.4. Significance of the Study

Higher Students' domain-specific learning outcomes, including their writing talents and motivation, have been indicated to increase with peer feedback (Brown, 2004; et al., 2012; Kellogg and Whiteford, 2009). Writing abilities improve thanks to online peer feedback, but this is no guarantee of effective peer feedback learning. To achieve the highest level of efficacy from online peer feedback, further consequential instructional peer feedback support is required. The bulk of previous studies (Chen et al., 2009; Shih, 2011; Tseng & Tsai, 2007) focused on the role of peer review on students' writing ability

without directly addressing the strategies that help students in instituting argumentative essays. As a result, this research will look into additional instructional peer feedback assistance that will aid in the development of writing argumentative essays. substitutable achieving feedback from peers whose motivational requirements are similar to one's own and giving feedback oneself are crucial components of the learning process (Bayerlein 2014).

Providing good peer feedback needs high cognitive and learning processing, which is not innate (King, 2002) There are many psychological, emotional, and also social barriers to giving and also receiving good critical feedback, including the fear of losing face students or getting a dispute with learning partners (Andriessen, 2006). Additionally, due to the (sinful) competitive and contentious elements of critiques, less aggressive students may refrain from delivering them (Nussbaum, Sinatra, & Poliquin, 2008). Consequently, the prevalence of feedback is shallow and lacks well-supported explanations for fostering students' critical thinking ability and deep and elaborate learning.

Additionally, empirical results indicate that students consistently struggle with the form and content of the feedback they get. Others want to consider grading, such as outcome-based learning in evaluation, while some students prefer to offer comments on personal attributes. These kinds of feedback have the potential to inhibit rather than help to learn. Thirdly, empirical evidence indicates that students typically struggle with the form and content of the feedback they get. Others want to focus on grading, such as outcome-based evaluation, while some students prefer to offer comments on personal attributes. These kinds of feedback have the potential to inhibit rather than help to learn.

It was observed that adopting an argumentative peer feedback script might facilitate the peer feedback process and encourage students to provide high-quality comments that would lead to deeper thought and, eventually, better learning outcomes. The students were guided by peer feedback to analyze and assess their learning partners' arguments on controversial subjects, express agreement or disagreement with their learning partners, and incorporate multiple points of view into their argumentative essays.

By establishing a connection between components of the feedback process and educational outcomes, the current study led to a better complete view of the peer feedback process comparable to a more suitable specific picture of the peer feedback process overall. This view of learning process factors in conjunction with learning results enabled researchers to investigate which classes of peer feedback processes appear to be most effective in improving learning results. Without sufficient assistance, it is challenging to anticipate students to engage in a pleasing, learning and writing peer feedback process.

1.5. The study's limitations

The results of this investigation were incorporated into an existing class in a real-world, dynamic educational context. This indicates that ecological validity is substantial. On the other hand, the realistic environment of this study limited the opportunities for inquiry. Additional study under more stringent conditions (the pretesting, student familiarity with the digital learning environment, and use of various module functionalities) and in accessory sections of the same online course also courses of a compact personality directive to determine the extent to which the final results can be generalized.

This will be accomplished by conducting the research in additional courses of a similar nature. The study's methodology and findings also reveal the following concerns and limitations, which deserve more debate and suggestions for more research. The absence of a control group may be considered a reasonable influential limitation of the investigation. We decided against including a control group in our examination because we did not want to adhere to a strict positivistic empirical process that would compromise the ecological validity of our findings. We arrange a high priority on and strive for a high practical relevance, which can only be achieved by conducting research in authentic educational situations as opposed to manufactured ones based on control conditions. In general, instructors of challenging courses, such as those that lived included in our research, are hesitant to accept rigorous positivistic empirical research.

1.6. Definition of Terms

Students' Motivation: Inspiration, according to the PMBOK, is "empowering people to attain high levels of performance and overcoming barriers to change." Psychologists have presented a variety of definitions for the phenomenon of motivation, which are briefly discussed here (Tohidi, H., 2011). Academia-specific motivation is the outcome of a complicated set of dynamics that includes both individual (dispositional) and situational (contextual) components in equal measure. The academic self-perceptions that students bring to the classroom influence some aspects of academic motivation, while additional factors of academic motivation are influenced by their direct and exact indirect interactions with the principal instructors and other students in the class. Students' motivation is not a constant element; it can fluctuate over time and across different learning environments and situations.

Students' Satisfaction: Students' opinions of their whole course experience can function as a proxy for their level of learning engagement when seen in the context of overall pleasure (Swan, 2001; Arbaugh, 2001; Richardson & Swan, 2003; Bolliger, 2004). Learner relevance, active learning, genuine learning, learner autonomy, and technical proficiency are the five pillars on which Ke and Kwak (2013) founded their definition of student satisfaction. Interactions between students and teachers, again between students and course material, are reliable predictors of positive assessments by students, as demonstrated by Kuo et al. (2013).

peer feedback: One definition of peer feedback is "a process of communication in which students have conversations about their performance and expectations." Specifically, (Liu and Carless, 2006, p.280). Coequal feedback lives called by many other names, including peer assessment, peer criticism, peer editing, and peer reaction. Due to the following considerations, peer feedback can be a helpful technique for facilitating student learning. According to Cho and MacArthur (2010), "peers share issues, languages, and expertise," and they usually share the same vocabulary (Topping, 2010), besides an "instant, socially acceptable audience" (Clifford, 1981) may be expected in a peer feedback practice. Furthermore, communicating faults may be less daunting and more acceptable to pupils.

Perceived learning: The phrase "perceived learning" refers to the student's estimation of how much they've learned based on their internal analysis. It is possible to tell the difference between actual and perceived learning by comparing actual and perceived learning. Real learning is the accumulation of new information via study and reflection.

Argumentative essay: An argumentative essay is depicted as a work in which the writer uses research to support a point of view on a contentious issue. An argumentative essay consists of a thesis statement, body paragraphs, and a conclusion. A refutation might also be included in the body. Argumentative essays are very typical in school. This sort of writing requires students to understand opposing points of view, perform thorough research, and use evidence to persuade readers.



CHAPTER 2

2. LITERATURE REVIEW

2.1. Online learning environment

According to Guernsey (1998a, 1998b), all students from an expanse of fields value online learning for their flexibility, convenience, and absence of needed travel. Students may access the information at any instant and by any location since it is flexible. Asynchronous communication students complete the class requirements by working at their speed (Guernsey 1998a, 1998b). Online classrooms have created an interactive learning environment in singly students can exchange information, develop knowledge, and obtain various experiences in a social setting.

According to participants, motivation is one of the main challenges of online education. In their analysis, Kress, Thering, Lalonde, Kim, and Cleeton (2012) reported equivalent results. Participants reported finding it challenging to remain motivated in particular online classrooms due to a lack of connection with classmates, the absence of the instructor, and lagging reaction times of both students and the instructor.

Since the late 1980s, peer feedback has been widely utilized to teach ESL/EFL writing as part of process-oriented education with an underline the technique writing technique (Berg, 1999). Peer feedback, also known as peer review, peer response, peer editing, peer critiquing, and peer admiration is a collaborative activity in which students read, discuss, and provide feedback on one another's work to improve their writing skills through reciprocal scaffolding (Hu, 2005; Konwonse, 2013; Tsui & Ng, 2000). This is in line with the findings of research by Liu and Hansen (2002), who discovered that when

students collaborated in groups or pairs, they shared information about each other's writing in both written and verbal forms and provided feedback on several drafts. Therefore, peer feedback is viewed as a potent constructivist tool for enhancing the learning and teaching experiences of both teachers and students by offering information to be utilized as feedback to improve the activities in which they engage (Black and William, 1998a; Marzano, 2007).

Peer feedback a totality has also moved from in-person meetings to the digital realm. As a result of this shift, students no longer have to wait until the next class or meet in a specific location to obtain feedback; they may instead receive it whenever it's convenient for them, and they can reflect on their progress in light of the comments they've received (Pham & Usaha, 2016; Saidalvi & Wan Mansor, 2012; Yeh, Tseng & Chen, 2019). Additionally, trendy years, several schools of thought have emerged to investigate the many types of peer critique that appear in online public speaking courses (Eikenberry, 2011; Pyke and Sherlock, 2010). Nelson (2008) categorized peer feedback as similarly a summary, problem identification, solution offering, localization, explanation, scope, praise, or mitigating language. On the other hand, Pyke and Sherlock (2010) classified feedback into three distinct types: negative, positive, and technical peer input. In another research study, Eikenberry (2011) distinguished between four unaccompanied kinds of feedback that may be used to improve students' writing: positive, negative, positive feedforward, and negative feedforward. While Saidalvi (2016) replicated Pyke and Sherlock's (2010) study, she discovered only corrective and motivational peer comments, leading her to the decision that students are proficient in using the online platform without any guidance.

2.2. The peer feedback and instructor feedback

In 1993, academics found that students cared most about having their voices heard (Dwinell, Higbee, & Skills, 1993). Different approaches have been used to examine the effects of teacher and student feedback on written work. Because of their additional lavish subject expertise, instructors and skilled tutors are more likely to provide feedback and emphasize broad writing problems (such as general structure) than peer editors. While helpful, these overall comments may be too abstract for some students to eventually grasp and incorporate into their changes (Cho & MacArthur, 2011; Li et al., 2011). When resembled on instructor feedback, peer feedback is more detailed (e.g., paragraph by paragraph) and often pertains to the assignment and correction of particular faults (Kasanga, 2004).

There are considerable discrepancies in the studies that compare the impact of teacher and student comments on writing. Lecturers and competent schoolteachers, of their broader subject knowledge, are better equipped to address global writing difficulties (such as an entire organization) than students' peers, who are more likely to focus on specific errors. While helpful, these broad comments may be too abstract for the students to entirely comprehend and use to inform their improvements (Cho & MacArthur, 2011, Li et al., 2011). When disseminated to teacher evaluation, peer feedback is more detailed (paragraph by paragraph) and often associated with the marker and correction of specific flaws (Kasanga, 2004). In addition, peer reviewers are more likely to introduce inconsistencies or outright fabrications into work than teachers (Li et al., 2011). On the other side, productive criticism from peers is often included in peer comments, which can facilitate the implementation of ideas and fuel motivation for growth (Kasanga, 2004; Lin

& Chien, 2009; Weaver, 2006). When approximated to teacher evaluation, peer feedback is more detailed (paragraph by paragraph) and often associated with the marker and correction of specific flaws (Kasanga, 2004). On the other side, shaping criticism from peers is constantly included in peer comments, which can facilitate the implementation of ideas and fuel motivation for growth (Kasanga, 2004; Lin & Chien, 2009; Weaver, 2006).

Teachers are less likely to make changes that live irresponsible or dishonest than students' peers (Li et al., 2011). Feedback from equivalents, on the other hand, is more likely to be constructive, which may aid in the adoption of new ideas and serve as a source of inspiration for further development (Kasanga, 2004; Lin & Chien, 2009). Students are more likely to make progress when they are subjected to peer editing because they want to avoid embarrassment. Research has not established that the quality of either peer or instructor criticism affects students' writing abilities or academic performance (Kasanga, 2004; Li et al., 2011; Lin & Chien, 2009; Weaver, 2006; White & Kirby, 2005). Furthermore, studies comparing student and instructor feedback have indicated no variation in representations of quality or validity (Gielen et al., 2010; Stellmack et al., 2012; Underwood & Tregidgo, 2005).

2.3. Peer feedback in Writing

Several studies have demonstrated the usefulness of peer input in helping students become better writers. First, Hansen and Liu (2005) argue that students can provide knowledge for one another in roles similar to those typically performed by instructors, allowing students to energetically participate in their learning and rethink their beliefs in light of their peers' reactions. Students can gain confidence and decrease doubt by observing the qualities and flaws in the writing of their classmates, as claimed by Ferris

and Hedgcock (1998). Most importantly, peer review has the potential to enhance students' communication abilities while simultaneously relieving teachers' workloads. Research displayed that peer feedback has been employed for many years. The first thing to note is that students value peer input more than teacher feedback, according to many studies on the topic (Kamberi, 2013). A different body of study investigates the optimal means of providing and receiving peer evaluations. Berg (1999) researched to determine the impact of trained peer response on the revision types and writing quality of ESL students and found that the trained peers positively affected both measures. For instance, Lundstrom and Baker (2009) found that students who supplied feedback outperformed those who just received an assessment, leading them to the perseverance that giving is better than receiving. The influence of peer evaluation on students' writing maintains also been studied by other experts (Cho & MacArthur, 2011). They thought that students would benefit from examining peer comments to assemble improvements to their work. It was also indicated by Berggren (2013, 2015) that students' comprehension of the audience and genre improved as a result of their participation as peer reviewers.

Although teacher and peer criticism have been shown to help students improve their writing abilities, there are many ways in which, they may be improved, according to a recent meta-analysis (Berg, 1999; Hansen & Liu, 2005). Feedback from teachers is judged impracticable since it may not be given to all students at all terms throughout the class hour, as feedback from peers is viewed as questionable because peers may not verify which of the peer feedback findings is correct. Peer feedback is considered a tempting writing practice since students may learn from one another's work even if they feel that teacher input is still the most helpful via them (Jacobs et al., 1998). (Lundstrom

& Baker, 2009; Hu, 2005; Cho & Cho, 2011; Cho & MacArthur, 2011; Berggren, 2012, 2015).

Technology is an excellent tool in the evolution of writing proficiency (Dudeney & Hocly, 2007). As fought to research conducted just a few years ago, which found that not all teachers thought that technology was good for promoting student learning (Richards, 2015), today's educators are more aware of the possibilities of technology in the classroom. The unharmed potential of web-based feedback on the writing quality of EFL students was investigated by Pariyanto (2012). Students may see many examples of high-quality writing online, which is why his study concluded that this form of feedback was sufficient in raising the bar for student essays. Many participants also said they used peer comparisons to learn more about their skills and weaknesses than they would in a teacher-evaluated setting. Since the fundamental acts of writing, such as editing and revising, are very similar to the peer assessment process, research indicated that it helps students develop their writing skills (McIsaac & Sepe, 1996).

When Guilford (2001) used a peer-evaluation strategy to teach the process of scientific writing to 39 undergraduates, he found that the students gained a deeper understanding of the course material and improved their technical proficiency in writing for publication. The determinations of Venables and vigorous, in their analysis, were comparable (2003).

It exhibited that students' writing skills and academic achievements benefit significantly from peer input. Richer (1992) conducted an experimental study with 87 participants to assess the effects of teacher and peer feedback on the writing abilities of first-year college students. The results indicated that the group that received exclusively

peer evaluation improved far more as writers than the other two. The results reveal that operating peer criticism is an effective strategy for college students to raise their academic performance.

According to an investigation maintained release by Liu et al., seventy per cent of participants favoured using peer review for writing tasks, and the vast majority of participants assessed it as being just as successful as the instructor's (2001). Venables and Summit reached a comparable conclusion in their research (2003). Saito and Fujita conducted a survey that included 61 students in their first year of business school (2004). The conclusions of the regression analysis also revealed that the ratings given to students by their peers did not accurately predict their sentiments. To restate this idea, it would appear that the students' attitudes on peer evaluation do not shift as a direct result of the ratings they receive from their peers.

Despite its usefulness in improving students' learning, a qualitative investigation by Topping et al. (2000) found that many students found the peer feedback evaluation technique at living time-consuming, cognitively soliciting, and socially unpleasant. During in-person peer assessment, Zhao (1998) found that students frequently expressed reluctance to contribute feedback out of fear of making mistakes or being mocked. Macleod (1999) claims that some students who take part in in-person peer evaluation are dishonest in their assessments because of the interpersonal interactions that arise.

2.4. Advantages and Disadvantages of Online Feedback

According to studies, students benefit from providing and receiving peer critique since it gives them a chance to act as both authors and editors of one another's work (Hansen & Liu, 2005; Lam, 2010). Also, students are more likely to actively participate

in providing feedback, which gives them a voice in scaffolding and creating their capacity, and eventually discussing what they believe when they receive peer input since it is timely and more informative (Lu & Law, 2012; Reynolds, 2009).

The cyclical nature of peer feedback helps students grow in numerous ways, including in their awareness, confidence, motivation, critical thinking, and social skills (Orsmond et al., 2013). In addition, children can improve their capacity for self-directed learning and the quality of their critical reasoning (Brusa & Harutyunyan, 2019). Despite the benefits, some people have unfavourable views about using peer advice, according to several studies. For instance, according to Rollinson (2005), students find the peer feedback activity tedious since it requires them to read and take notes, confer with another reader to achieve an agreement and offer written input, or interact verbally with the writer. First and foremost, students may not engage in peer feedback if the writer's experience with such criticism has been negative. These difficulties were exacerbated by factors such as the lack of time allotted for peer feedback training (Min, 2005), the difficulty in providing qualified feedback, and the lack of trust in the validity of peer responses (Toowong, 2003). Therefore, students need extensive peer training in both providing and receiving feedback on composition critiques to develop as competent informants in these areas. In addition, improvements have been made to communicative language training because of the emphasis placed on peer feedback in theories of speech of acquisition. However, several studies have considered the pros and cons of incorporating peer input and have concluded that the pros exceed the cons (Hu, 2005; Lam, 2010; Van Zundert et al., 2010). Consequently, there are benefits to using peer

criticism to help ESL/EFL students enhance their writing skills despite the challenges of a pose.

For peer feedback to be reasonable, teachers must consider how to sufficiently prepare students to provide qualified comments as they live documenting.

The method of writing has been around since the 1970s, so it's not exactly cutting edge (Key,1989). Enriching writing skills have also benefited the author at every stage of the writing process. Moreover, to help students improve their problem-solving ability, teachers of essays must understand better how the writing process itself works operates. Based on the work of Flower and Hayes (1981), White and Arndt (1991), and Kim (2005), the writing process in this investigation was broken down into six steps: 1) Students were given the assignment of developing an outline, mind mapping or producing thoughts in the form of a paragraph while using correct grammar. In step two, "drafting," students gathered their beliefs into a single section. Students engaged in a group exercise where they evaluated the work of their colleagues and provided constructive feedback. 4) Students may immediately ask questions and get answers if they disagree with their classmates' answers. Students utilized self-assessment as a means of monitoring progress. Students were then asked to rewrite the paragraph, this time paying close attention to their spelling, punctuation, and grammar. When students are alive and satisfied with the results of their revisions, they might go back to earlier steps in the method to make corrections or collect additional information in pursuit of an excellent final product. Therefore, it is clear that students should be exposed to the writing process and then encouraged to develop their writing abilities through prewriting and revision.

What is provided and what is received determine the value of the transaction. For instance, Tsivitanidou et al. (2018) found that the number of reasonable feedback students received during the peer-feedback process was positively correlated with their task performance. When it reached commenting, Cho and MacArthur (2011) found a similar result (i.e., those who offered the most comments for peers benefited the most in terms of performance). Peer feedback training has been shown to keep a positive effect (Sager, 1973). Students' motivations for employing peer assessment vary widely (Zou et al., 2018). Students are troubled by the credibility of the protest they offer and accept, and they commonly arrange that grades should not live allocated by classmates. (Kaufman & Schunn, 2011; Liu & Carless, 2006; Mangelsdorf, 1992). Most notably, they take offence at the often critical tone of student assessments (Leki, 1990; Zou et al., 2018).

Academics have long acknowledged the need to provide students with constructive criticism to improve their learning and happiness (Brown and Knight 2012; Higgins, Hartley, and Skelton 2001, 2002). High-quality feedback, comparable to Beaumont, O'Doherty, and Shannon (2011), is given promptly, provides in-depth explanatory remarks, and is supplemented with the opportunity for argument in an ongoing conversation between staff and students. Several meta-analyses have found that giving students feedback is essential to their learning (Black and Wiliam 1998; Hattie and Jaeger 1998; Hattie, Biggs, and Purdie 1996). This is because feedback allows students to compare their performance to the outcomes they were aiming for (Lizzio and Wilson 2008) and gives them the agency to become self-regulated (Pintrich and Zusho 2002). Some studies stress the positive impact of feedback on students' learning (Black &

William, 1998), while others are more cautious (Dunn Mulvenon, 2009). National Student Surveys (Beaumont, O'Doherty, and Shannon 2011; Higgins, Hartley, and Skelton 2001), for instance, indicated that students in the United Kingdom (UK) continue to be dissatisfied with the level of depth, timeliness, and clarity of the feedback they get each year. It has been demonstrated that remarks can harm students' self-perceptions and confidence (James, 2000; Ryan, and Deci, 2000), which can abuse their academic performance (Lizzio and Wilson 2008). Prior studies sizably concentrated on individuals' responses rather than entire groups' (London and Sessa 2006).

Results and encouragement from teachers Countless studies have confirmed the connection between constructive criticism and increased student engagement. Students' communication, flexibility, thinking, attention, resilience, and pursuit of goals fully benefit from pleasant experiences in life facilitated by good feedback (Vansteenkiste and Deci, 2003; Weaver, 2006). Rowe, Fitness, and Wood (2015) The potential downbeat effects of feedback on students' self-esteem and motivation have led many educators and researchers to stress the need for equipping students with positive feedback (Lizzio et al. 2003; Lizzio and Wilson 2008).

2.5. Learning Motivation in an online environment

According to Ryan and Deci (2000, p. 56), an individual's "intrinsic motivation" exists when he or she aims at an activity for its own sake, whether out of a sense of pleasure, curiosity, or intellectual challenge. Alternatively, the prospect of receiving an extrinsic reward, such as acclaim or a premium of some style, may motivate an individual to take action toward a goal. The issue that Kransow (2013) brings out is a grave person for online teachers. Is there a way to optimize online learning environments such those

students have a positive learning experience and stay engaged throughout the course? Krasnow emphasizes the need for building a sense of community in the digital space, and she does it by referencing works of literature. Yet, to construct an online community that actively serves to dissatisfy students, one must employ strategies beyond just encouraging students to engage with course materials. It has been exhibited that the "desire to study and self-discipline are generally favorably associated with online learning effectiveness" (Steiner & Hyman, 2010, p. 30). To succeed in an online classroom, students need the capability to self-regulate their learning (Eom et al., 2006). When students take charge of their education, they improve their contentment with school and their ability to study (Eom, 2010).

Students' obvious foremost motivation for learning is to perform well on standardized tests, even though this approach prioritizes achievement over development (Romanowski 2004). Student satisfaction could be increased by shifting the principle of assessment away from learning and toward performance. Students have a clearer understanding of what is expected of them and are provided with strategies for bridging the gap between their current and desired levels of accomplishment (Sadler 1989). By practising evaluating the quality of their own and their peers' work against agreed-upon assessment criteria, peer review activities can also help students prepare for summative tests (evaluation of learning). Fostering this ability is essential to their long-term success (Boud 2010). While So and Lee (2014) discuss findings exhibited that students' perceptions were positive and that peer review (both giving and receiving) was thought to be helpful and reasonable, it is unclear if any effort was made to study or even discuss the specific effect of students producing feedback, beyond students' mentions of their anxiety

about providing good feedback or the narrow focus of their comments (e.g., grammar, vocabulary, organization, etc.).

2.6. Satisfaction in an online learning environment

Student satisfaction with distance learning was studied by Strachota (2003), who found that contact was the most influential factor. This included interaction with the class instructor, other students, and course materials and technology. In her study, learner-content interaction is the most significant predictor of university student pleasure, followed by learner-and-instructor interaction and learner-technology interaction. There was no evidence that student-to-student and intra-class communication played a meaningful role in determining happiness. Ollinger (2004) identified three categories of student satisfaction with online learning: interaction, teacher variables, and technological challenges. According to research by Palmer and Holt (2009), a student's familiarity with technology has a significant role in whether or not they enjoy enduring online classes. The student's perception of their progress in the online setting and the clarity of the requirements ranked lower. Drennan, Kennedy, and Pisarski found that students' positive attitudes about technology were one of two essential factors in their overall sense of well-being (2005). Self-directed and creative learners made up the second category. Trainers' pleasure in the classroom was studied by Richardson and Swan (2003), who found that it was correlated with students' ability to interact with one another during online lessons. They found that students' reports of feeling socially present were associated with their reports of judging flourishing academically and personally.

Kleinman (2005) looked into ways to enhance online course instructional design to encourage more student involvement and active learning. Ten years of research by

Kleinman on online learning communities led to the conclusion that a positive learning environment encourages students to be actively involved in their education and provides the necessary interactive support for them to absorb course material. Swan (2001) found that student engagement is crucial while developing online courses. Wang (2003) argues that assessing the efficacy of online education is a necessary first step before attempting to quantitatively compute students' delight. The advent of distance learning has brought about a revolutionary change in the educational system.

Abel's (2005) best practices outline several institutional factors that contribute to the success of online learning programs; one of them is student happiness (leadership, faculty commitment, student support, and technology). Sener and Humbert (2003) argue that a happy participant is essential to developing a successful online course.

Some research (Swan, 2001; Shelley, Swartz, & Cole, 2008, 2007) have examined students' reactions to e-knowledge, likewise in its pure online and blended forms (Lim, Morris, & Kupritz, 2007).

Dissatisfaction amongst students may be defined and measured in several different ways. The essay by Rubin, Fernandes, and Avgerinou (2013) builds on the work of Garrison, Anderson, and Archer (2000), who coined the term "Community of Inquiry" to explain the importance of teachers' physical, mental, and social presence in students' success in the classroom. Operating the inquiry framework, they found that specific features of the LMS were responsible for the consensus among users. It was also asserted by Mahmood, Mahmood, and Malik (2012) in a similar study that students' perception of a teacher's presence was the most influential aspect of online education. The significance of engagement cannot be overstated in either traditional style of experiences or figurative

ones (Kuo, Walker, Belland & Schroder, 2013). many studies have found that the quantity and quality of student interactions are significantly related to student happiness in virtually every class educational setting. Regardless, González-Gómez, Guardiola, Martin Rodriguez, and Montaro Alonso (2012) found that demographic and cultural variables impact the development of suitable interaction strategies in online learning.

He and Kwak identified five factors that donate to student satisfaction: learner relevance, active learning, authentic learning, learner autonomy, and technical competence (2013). In their study, Kuo et al. (2013) found that favourable views live predictably correlated with learner-instructor contact, learner-content interaction, and students' perceptions of their technological competence. According to Battalion (2007), who employed a criterion-based method, effective student-instructor interaction is essential to receiving a high course evaluation. Keengwe, Diteeyont, and Lawson-Body (2012) argue that the legend to understanding the satisfaction construct in online courses is the instructor's awareness of and ability to cater to students' expectations. The authors concluded that satisfaction was most affected by the combination of learner convenience and the efficiency of e-learning tools.

According to Dziuban, Moskal, Brophy-Ellison, and Shea (2007), six central elements affect students' happiness: enhanced opportunities for education in the education sector, where staff must be especially sensitive to the needs of their student clientele, ambiguity can have serious consequences (Long, 2011; Bordelon, 2012; Allen & Seaman, 2013). As a result, contentment is a strong indicator of achievement in an expansive range of educational settings, particularly those including online modes of

instruction. Satisfied students look engaged, motivated, and responsive; they contribute to effective learning surroundings; and do better.

As Wickersham and McGee (2008) found, students' Ratings of satisfaction with their online education were lowest when class participation was little. Lee (2010) analyzed elements containing online learner acceptance and amusement to determine the efficacy of online support assistance. to what extent online education is successful is mainly depending on how satisfied its students are with their experiences (Arbaugh & Benbunan-Fich, 2007; So & Brush, 2008). There is significant evidence to suggest that online students do worse on course evaluations than their face-to-face counterparts (Mintu-Wimsatt, Ingram, Milward, & Russ, 2006). Consequently, more research is needed to identify the factors that hurt students' happiness in digital classroom environments (So & Brush, 2008).

CHAPTER 3

3. METHODOLOGY

The methodological techniques are identified in this chapter. First, the study's purpose is described. Second, research questions are prioritized. Third, attendees are discussed, followed by a discussion of the technical instruments utilized in the current study in the fourth section. The gathering-data technique was clarified in the fifth section, and the data analysis procedure was discussed in the sixth section.

3.1. The Purpose of the Study

This study was applied at WUR University in the Netherlands. The reason for doing this research was to explore students' attitudes toward motivation, satisfaction, and perceived learning through using an online feedback environment in the context of argumentative essay writing.

This project in big scale was created to strengthen students' reasoning skills in writing argumentative essay by implementing online feedback. For this study one class was chosen and for achieve this goal, online feedback (FeedbackFruits app) module was added as a feature to the online learning environment. At first, the students were introduced to the theoretical concepts of reasoning, and then they were asked to prepare the initial draft of their writing based on what they learned and upload it to the system. Each student gave feedback to his two classmates based on the random division of Feedback Fruits app . Each student revised his essay based on the feedback he received from his classmate and re-uploaded it in the system. The essays were reviewed and graded based on the rubric provided by the teacher. At the end of the research, in order to

understand the views of the students about the online feedback system, they were asked to fill the questionnaire related to the research. (More detail will explain in the Design of the Study).

In this study, the correlational method was used. Correlational research is research in which the researcher tries to measure two variables and then assess the statistical relationship between them with little or even no attempt to control extraneous variables. (Kanner, Coyne, Schaefer, & Lazarus, 1981). There are two main reasons why we are interested in the correlation method between variables and might prefer to perform a correlational study rather than an experiment.

The first reason is that we do not believe the statistical relationship is cause-and-effect, so we do not want to investigate the impact or effect-and-cause of satisfaction, motivation, and perceived learning. We also chose a correlational method in this study over an experiment, as we think even the statistical relationship we are interested in is causal, but we can't change the independent variable because it is impossible, impractical, or unethical to do so.

Through an online peer feedback environment, we used an online survey to evaluate the students' motivation, satisfaction, and perceived learning outcomes. To determine the level of the variables, one questionnaire with three separate subjects was used, and descriptive statistics were used to examine the relationship between these variables.

3.2. Research questions

The following are some of the main study questions that were asked for this study:

1. What is the level of students' satisfaction with online peer feedback in the argumentative essay writing environment?
2. What is the level of students' motivation with online peer feedback in the argumentative essay writing environment?
3. What is the level of students' perceived learning with online peer feedback in the argumentative essay writing environment?

3.3. Participants and context

This study was conducted during the academic year of 2020-2021 at Wageningen University and Research (WUR) as a component of a larger project that was carried out there. For this study, 41 graduate students from a class entitled "Academic Argumentation in Scientific Writing and Debate" volunteered to accept parts. In total, there were 13 male students and 28 female students in the class. Their ages ranged from 19 to 33 years old. The instruction was provided to students through the Brightspace platform, and they were given an introductory three weeks to finish the "Argumentative Essay Writing" module. The first week of class was spent instructing students on the principles of writing an argumentative essay, after which they were given the task of producing an argumentative essay on one of three topics that had been offered. Students were given an assignment in which they were to select two argumentative essays written by their classmates and conduct an in-depth analysis and critical evaluation of each paper using the criteria presented in the second week of class. In the third week of style, students were given two sets of review materials from their classmates and were

instructed to revise their original writing using those materials as a guide. After the third week of class, it was requested that students fill out the survey.

About Brightspace online learning platform

This study was conducted using Brightspace as an main online learning platform. Teachers can use this online learning management system (LMS) to administer online courses in real-time, better create a modules and online rubrics and for assess students. Brightspace provides students with an assortment of alternatives, including viewing course information, participating in peer collaborations, and submitting learning activities from any location at any time. Feedback Fruits is an external EdTech product in directive to lives integrated into Brightspace to increase student engagement through different peer cooperation tactics. We used the peer feedback tool for this study, that allows instructors to generate tasks for all students to submit comments to their peers. The program may be used to organize and expedite the process of students assessing the work of their classmates. The standards by which students estimate the result of their classmate lives designated by the teacher. The LMS automatically syncs learning groups, and each student is allocated a contribution to provide online peerfeed back . Feedback may be offered on a combination of outputs, including videos, websites, and papers.

Figure 1. A Sample Brightspace online learning platform

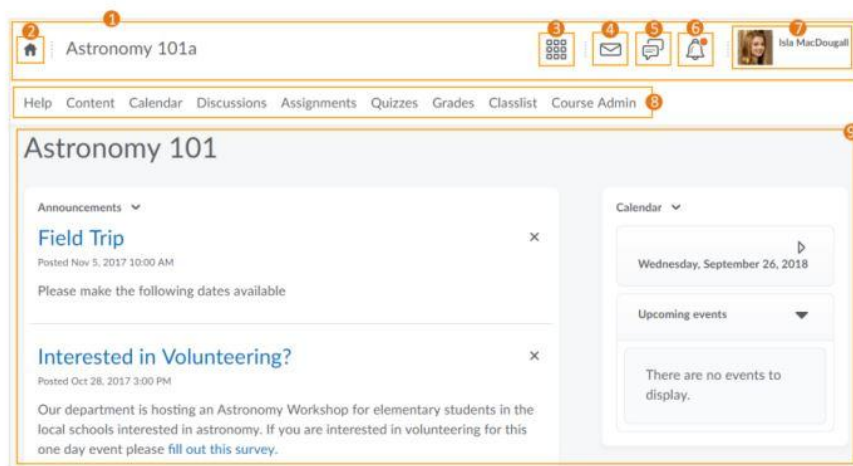


Table 1. General Information of participant

		Gender			
		Frequency	Percent	Valid Percent	Cumulitave Percent
Valid	Female	28	68.3	68.3	68.3
	Male	13	31.7	31.7	100.0
	Total	41	100.0	100.0	

Figure 2. The ratio of Female Students to Male Students

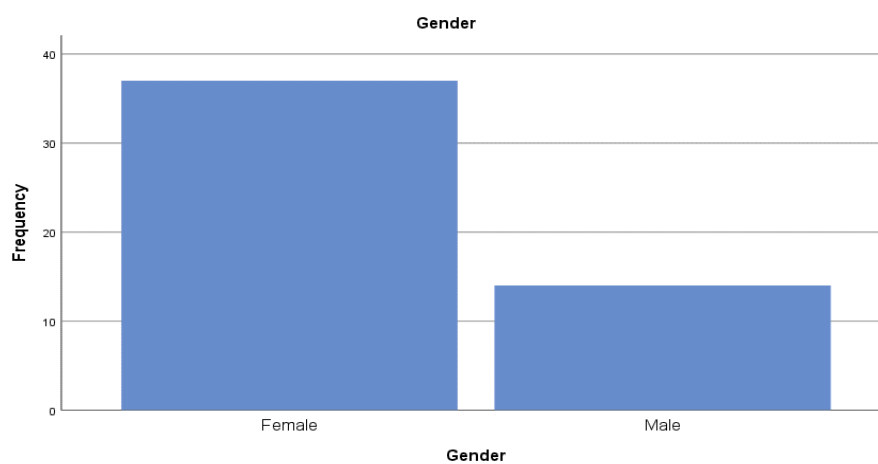


Figure 3..Age of students participating in study

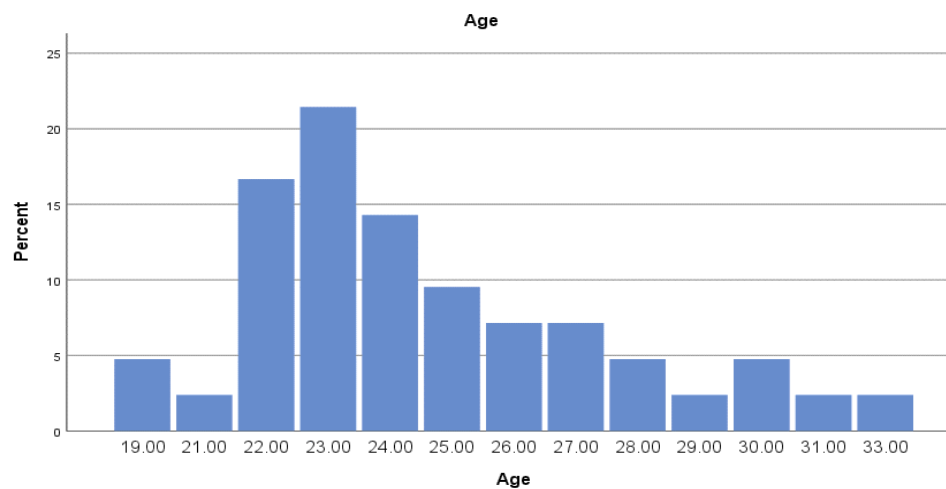


Table 2. The Distrubution of the Age in Attendees

Age				
	Frequency	Percent	Valid Percent	Cumulative Percent
19.00	1	2.4	2.4	2.4
21.00	1	2.4	2.4	4.9
22.00	7	17.1	17.1	22.0
23.00	9	22.0	22.0	43.9
24.00	6	14.6	14.6	58.5
25.00	4	9.8	9.8	68.3
26.00	3	7.3	7.3	75.6
27.00	3	7.3	7.3	82.9
28.00	2	4.9	4.9	87.8
29.00	1	2.4	2.4	90.2
30.00	2	4.9	4.9	95.1

31.00	1	2.4	2.4	97.6
33.00	1	2.4	2.4	100.0
Total	41	100.0	100.0	

Table 3. *Students' Original and Revised Essay Score (N=41)*

Number	Students essays scores	
	Original essay score	Revised essay score
1	12.00	14.00
2	16.00	16.00
3	12.00	12.00
4	12.00	12.00
5	16.00	18.00
6	11.00	13.00
7	12.00	15.00
8	11.00	14.00
9	12.00	15.00
10	11.00	14.00
11	13.00	14.00
12	11.00	15.00
13	12.00	15.00
14	9.00	13.00
15	11.00	14.00
16	16.00	20.00
17	14.00	15.00
18	13.00	14.00
19	13.00	14.00
20	12.00	15.00
21	12.00	15.00
22	17.00	17.00
23	18.00	18.00
24	7.00	11.00
25	11.00	11.00
26	11.00	13.00
27	17.00	17.00
28	16.00	16.00
29	12.00	13.00
30	16.00	19.00

31	17.00	19.00
32	23.00	24.00
33	10.00	15.00
34	13.00	15.00
35	10.00	15.00
36	17.00	18.00
37	17.00	17.00
38	16.00	17.00
39	21.00	22.00
40	9.00	9.00
41	15.00	17.00
Total	41	41

3.4. Data Collection Tools and Measurement

Researchers adapted to all inventories online after obtaining permission from WUR University's Ethical Committee. Considering the purpose of the study, demographic information forms for students are used in the present study, On the Demographic Information Form for Students. There are questions about the student's gender, level of education, age, and course name (see Appendix B).

3.4.1. Students' Satisfaction and Perceived learning questionnaire

A online questionnaire contain 38 items, then prepared by Mahdizadeh (2008) and updated by Noroozi et al. (2107), was used to assess the level of satisfaction and perceived learning that students had as a result of participating in online peer feedback activities, the items on this questionnaire were constructed using a Likert scale of five points, with the answers ranging from "strongly disagree" = 1, "disagree" = 2, "neutral" = 3, "agree" = 4, and "strongly agree" = 5 this questionnaire was broken up into three primary sections, each of which featured several subcategories, the first part of the examination consisted of five questions that assessed the students' claimed levels of satisfaction and motivation toward peer feedback, in second section (17 items), students

were asked to rate how satisfied they were with three different subcategories: the item perceived ease of use of the online module, how pleased they were with the learning task, and how fair they perceived their peers' feedback to be, in the third section (16 items), students were asked to rate how satisfied they are with the perceived learning subcategory which contain the perceived effects of the domain-specific learning and domain-general learning, perceived usefulness of online peer feedback. This instrument had a high-reliability coefficient across all three tree scales, with a Cronbach alpha value of 0.82, 0.80, and 0.76 respective.

3.4.2. Students' Motivation questionnaire

A questionnaire created by Xiao and Lucking (2008) and modified by Noroozi and Mulder (2017) used to evaluate students' motivation. (Cronbach = 0.82) (See Appendix C.)

Table 4. *Genral Sturucter of the Quesioner*

Main Sections	Subdimentions	subcategories	Items
First	Students' motivation and enjoyment of peer feedback	Ease of using the module	5
Second	Students' satisfaction	Satisfaction from the learning	17
		Perceived fairness of peer feedback	
Third	Students' opinions on the Perceived learning	Perceived effects of the domain-specific outcomes	16
		Perceived effects of the domain-general outcomes	

Perceived usefulness of peer
feedback

Total

38

Measurement Students' online peer feedback performance

Based on a literature review that included works by Nelson and Schunn (2009), Patchan et al. (2016), and Wu and Schunn (2015), the authors developed a coding system to assess the quality of students' online peer feedback (2020b). This coding scheme is comprised of four primary categories: affective, cognitive (description, identification, and justification), constructive, and feedback-feedforward type. For each category, the coding scheme was rated from 0 (poor) to 2 (good) points. The sum of all points determined the quality of online peer feedback. Since each student gave two sets of peer feedback, the quality of online peer feedback for each student was based on the mean score of both sets. Similar to the analysis of the argumentative essay, the peer feedback analysis was coded by the same two people. The Cohen's kappa coefficient for inter-rater reliability among the coders was found to be significant (Kappa=0.60, p0.01).

3.5. Design of the Study

Procedure

To carry out this research project, a new course module titled "Argumentative Essay Writing" developed and then added to the existing Brightspace-hosted class. The course was broken up into three distinct weeks. And during each of those weeks, the students

were responsible for completing a unique set of assignments. The students were familiar with fundamental subjects on how to permit an argumentative essay during the foremost week of class. They were asked to fill out an online survey about attitudes toward online peer feedback and write an first draft of argumentative essay in English on one of subjects. All of the surveys and essays were due on the same day.

The topics for the class were selected by the teacher based on the specified criteria, which included the requirement that the issue is controversial and relatively novel in the field of economics and environmental policy. The first draft of the piece was something we viewed as a preliminary assessment of the topic. During the second week of class, students were instructed to estimate two argumentative essays that included been written by their classmates and provide feedback (30 to 50 words for each argumentation part – see the following section) based on the criteria that had been incorporated into the FeedbackFruits app that was housed in the Brightspace platform. During the third week of the course, students were obliged to revise their compositions in light of the two components of review suits, That they had received from their classmates and uploaded updated versions of their essays to the online learning platform.

Table 5. *Design of the Study & Weekly Procedure*

Module structure	Deadline
<i>Module instruction</i>	
● Details on the form of the module and what is expected to be done in this module. ● Informing students regarding the setup of the module. ● Mentioning important notes	Week 1

Task 1

- Original argumentative essay writing in FeedbackFruits

Task 2

- Peer feedback based on the rubric and comments criteria in FeedbackFruits

Week 2

Task 3

- Revised argumentative essay writing

Week 3

survey

- Completion of the survey
-

Figure 4. First week sample essay from an student

Opinion paper*Scientific Argumentation*

Cathalijn Konijnenberg

Topic 3: Climate Change

The negative ecological effects of range shifts on species*Introduction*

As climate change is becoming more and more important, both in politics and in our own private lives, many questions are still unanswered. Climate change does however not only affects us as humans, but has a widespread impact on flora and fauna species. A specific topic related to climate change that leads to a lot of discussion is the effect of climate change on the (re)distribution of species and how that may have positive or negative effects. A study into different butterfly species for example found that the average community shift northward was 114 km, which has a large effect on the habitat type that these species occupy ("Shifting Ranges", 2020). These so called 'range shifts', the climate driven changes in species distribution, are in my opinion detrimental for the ecosystem and the species involved (Pecl et al., 2017).

Arguments

When species migrate to a new area, they have to try and occupy the same kind of ecological niche as they did before. This is however not always possible, since in those new areas different food sources and different types of predators could occur. Due to climate change species are still risking those negatives in order to find a suitable habitat. Species often move more northward, to find a region where the temperature might be similar as to what they are built for (Chen et al., 2011). When species are forced to shift their range to a different latitude for example, they can come into contact with endangered species that are already at the brink of extinction and cannot deal with another stressor in their environment. This might lead to cascading effects for many species involved in a specific ecosystem (Pecl et al., 2017).

Counter-arguments

Some could say that nature is always changing already. Differences in temperature, CO₂ levels and even large changes in habitats such as volcanic eruptions have had an impact on the environment since the beginning of time. The fact that species can adapt and adjust is an inherent part of nature and the base of evolution. Therefore, one could say that current changes such as range shifts should not be considered a problem or as abnormal. Secondly, one might counter that there is not enough data available to confidently conclude that the occurring range shifts are indeed caused by climate change (Taberi et al., 2021). When not enough research has been done, you could argue that the link between climate change and range shifts does not actually exist. |

Figure 5. Second week sample feedback for the same essay from his peer


FeedbackFruits

Peer Review

Review export of
Tasks 2 and 3: Argumentative essay writing and peer feedback

Reviews written by
Danny Huang


 On 'Opinion paper C Konijnenberg.docx'
 Submitted by Cathalijn Konijnenberg


 Downloaded at 07 Oct 2021, 14:10


 Review for Cathalijn Konijnenberg

Introduction on the topic

Comment criterion

1 comments


 Danny Huang
 27-09-2021 00:50:03

The introduction is quite clear in the sense that it introduces the topic and explains the motivation. However I think the importance and societal aspect could be underscored more. an example could be given on how the shifting ranges could impact humans as well.

Arguments against the position (counter-arguments)

Comment criterion

1 comments


 Danny Huang
 27-09-2021 01:12:29

The counter arguments are valid points given against the position. I could imagine these could be used to try and oppose the standpoint.

Justifications for arguments against the position

Comment criterion

1 comments


 Danny Huang
 27-09-2021 01:13:49

as for the justifications, the first one could be more strongly backed, as currently there is no source. However for the second point this is the case, thus that one is better backed

Figure 6. Third week sample revised essay based on receiving feedback

Opinion paper*Scientific Argumentation*

Cathalijn Konijnenberg

Topic 3: Climate Change

The negative ecological effects of range shifts on species*Introduction*

As climate change is becoming more and more important, both in politics and in our own private lives, many questions are still unanswered. A specific topic related to climate change that generates a lot of discussion is the effect of climate change on the (re)distribution of species and how that may have positive or negative effects. A study into different butterfly species for example found that the average community shift northward was 114 km, which has a large effect on the habitat type that these species occupy ("Shifting Ranges", 2020). This might also cause problems for us as humans, as for example allergenic ragweed species spread into populated areas leading to human health risks (Rasmussen et al., 2017). This paper will argue that these so called 'range shifts', the climate driven changes in species distribution, are having catastrophic effects on the ecosystem and the species involved.

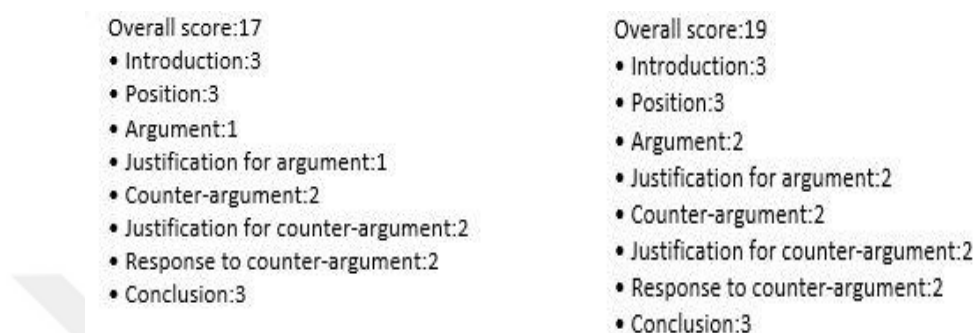
Arguments

Species often move more northward, to find a region where the temperature might be similar as to what they are evolutionary built for (Chen et al., 2011). When species migrate to a new area, they have to try and occupy the same kind of ecological niche as they did before. This is however not always possible, since in those new areas different food sources and different types of predators could occur. When species are forced to shift their range to a different latitude for example, they can come into contact with endangered species that are already at the brink of extinction and cannot deal with another stressor in their environment. This might lead to cascading effects for many species involved in a specific ecosystem (Pech et al., 2017). Lastly, range shifts also induce the spread of different pest species, negatively impacting vulnerable native species (De Grandpré et al., 2018).

Counter-arguments

Some could say that nature is always changing already. Differences in temperature, CO₂ levels and even large changes in habitats such as volcanic eruptions have had an impact on the environment since the beginning of time (Millar & Woolfenden, 1999). The fact that species can adapt and adjust is an inherent part of nature and the base of evolution. Therefore, one could say that current changes such as range shifts should not be considered a problem or as abnormal. Secondly, one might counter that there is not enough data available to confidently conclude that the occurring range shifts are indeed caused by climate change (Taberi et al., 2021). When not enough research has been done, you could argue that the link between climate change and range shifts does not actually exist. |

Figure 7. *Comparing scores before and after receiving feedback for the same essay*



3.6. Data Analysis

The researcher collected and analyzed quantitative data for this particular study. IBM SPSS version 26.0 was utilized for statistical analysis in this investigation (IBM Corp, Released 2019, the States).

The Kolmogorov-Smirnov test was used to understand whether or not the distribution of the data was average, and it was found that the data were normally distributed ($p > 0.05$). Additionally, descriptive statistics methods (standard deviation, median, frequency, and percents) used for summarizing the overall evaluation.

CHAPTER 4

In this study, illustrative analysis was utilized to provide an overview of students' attitudes toward online peer criticism in the argumentative essay writing environment.

The Kolmogorov-Smirnov test was used to examine whether or not the data distribution was average, and it was found that the data distribution was normal ($p > 0.05$).

To encounter answers to our questions, we used a multiple linear regression test.

1. What is the level of student satisfaction with online peer feedback in the argumentative essay writing environment?
2. What is the level of students' motivation with online peer feedback in the argumentative essay writing environment?
3. What is the level of students' perceived learning with online peer feedback in the argumentative essay writing environment?

4. Results

1. What is the level of student satisfaction with online peer feedback in the argumentative essay writing environment?

After investigating to select the sceneries of students regarding the utilization of an online feedback environment, the findings indicated a high level of satisfaction with the online peer feedback activity. ($M = 3.86$, $SD = 0.56$), for the other item, ease of using the online module ($M = 4.08$, $SD = 0.77$), for the item satisfaction with the learning task ($M = 3.80$, $SD = 0.74$), and for the perceived fairness of peer feedback ($M = 3.75$, $SD =$

0.82). Students' level of the satisfaction with the topic of ease of use of the e-module was high, and the perceived fairness of online peer feedback was lower.

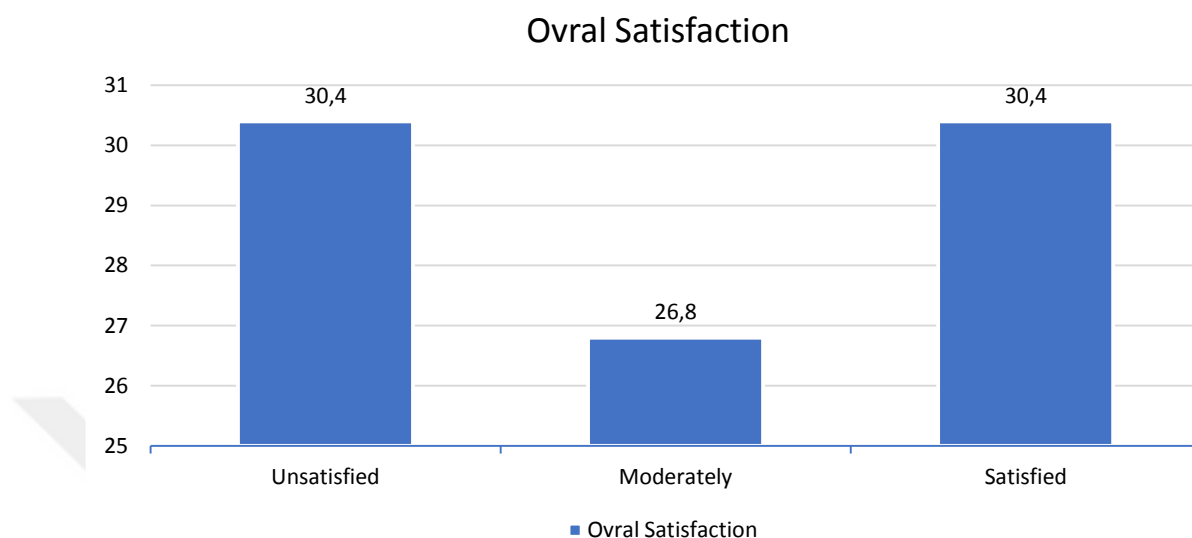
In this study, for each category of satisfaction, the results indicated that students' satisfaction with the item domain-general/ domain-specific outcomes is respectively ($M = 3.81$, $SD = 0.78$). In addition, students were satisfied with the usefulness of peer feedback ($M = 3.60$, $SD = 0.86$).

Table 6. *Students' attitude towards Satisfaction with online peer feedback module (N=41)*

Variable	Item	Mean	Agreement N. (%) ^b	Disagreement N. (%) ^c	Neutral
Ease of use of the module	Working on various parts of module was easy, clear, and comprehensible	3.87	31(75.6)	1(2.4)	9(21.9)
	I had no technical problems in working on the module	4.24	34 (82.9)	4(9.7)	3(7.3)
	It was easy to working with various functionalities of the module	4.17	34(82.9)	2(4.8)	5(12.1)
	It was easy to navigate through the module	4.24	33 (80.4)	1(2.4)	7 (17)
	Overall, the module was user-agreeable	4.21	35 (85.3)	2(4.8)	4 (9.7)
Satisfaction with the learning task	I enjoyed working on the module	3.56	23 (56)	7 (22.5)	11(26.8)
	The description of the assignments and instructions was very clear	4.19	36(87.8)	2(4.8)	3(7.3)
	The time allocated for carrying out various parts of the module was acceptable	4.09	34(82.9)	3(7.3)	4(9.7)

	The workload of the module was acceptable	3.92	32(78)	3(7.3)	6(14.6)
	The module was not uninteresting	3.43	19	7(17)	15(36/5)
	I would like to follow module to learn a range of subjects	3.56	26	9(21.9)	6(14.6)
	The use of such a module should be encouraged in the instruction	3.90	31	4(9.7)	6(14.6)
	Overall, I am satisfied with how much I learned in this module	3.78	26	4(9.7)	12(29.2)
Perceived fairness of peer feedback	The feedback I received from my peers on my argumentative essay was acceptable	3.39	29	2(4.8)	10(24.3)
	I deserved the feedback I received from my peers on my argumentative writing	3.78	30	3(7.3)	8(19.5)
	The feedback I received from my peers was as fair as the teacher's feedback	3.39	20	7(17)	12(29.2)
	I am satisfied with the level of fairness of feedback I received from my equivalents	3.70	29	4(9.7)	8(19.5)

Also, to analyze the overall portion of satisfaction level, pupils were separated into three diverse groups. 30.4% of students in this study were unsatisfied, 26.8% were moderately satisfied, and 30.4% were satisfied.

Figure 8. *Students overall satisfaction*

2. What is the level of students' motivation with online peer feedback in the argumentative essay writing environment?

Table 7. *Students' attitude towards Motivation (N=41)*

Variable	Item	Mean	Agreement N. (%) ^b	Disagreement N. (%) ^c	Neutral
Perceived motivation/enjoyment of peer feedback	I enjoyed giving feedback on my peers' jobs	3.51	24	7(17)	10(24.3)
	I enjoyed receiving feedback from my peers	3.53	25	7(17)	9(21.9)
	The Peer feedback activities motivated me to engage in learning commissions	3.36	22	7(17)	12(29.2)
	I proud when I receive positive peer feedback	3.80	29	4(9.7)	8(19.5)

I felt comfortable giving critical feedback	3.80	26	4(9.7)	11(26.8)
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3. What is the level of students' Perceived learning (domain specific/General) with online peer feedback in the argumentative essay writing environment?

Table 8. *Students' attitude towards Perceived learning (N=41)*

Variable	Item	Mean	Agreement N. (%) ^b	Disagreement N. (%) ^c	Neutral
Perceived effects on the domain-specific learning outcomes	The module broadened my knowledge of the topic	3.82	30(73.2)	3(7.3)	10(24.3)
	The module deepened my knowledge of the topic	3.80	30 (73.2)	3(7.3)	8 (19.5)
	The module helped me learn the pros and cons of arguments	3.78	28(68.3)	4(9.7)	9(22)
	Overall, I am satisfied with my learning in this module	3.78	30 (73.2)	4(9.7)	7(17.07)
Perceived effects on the domain-general learning outcomes	The module helped me learn elaborate on the various pros and cons of the subject	3.78	26(63.4)	2(4.8)	13 (31.7)
	The module helped me learn defend and support my opinion on the subject	3.70	31(75.6)	2(4.8)	8(19.5)
	The module helped me learn integrate various perspectives on the	3.70	23(56)	3(7.3)	15 (36.5)

	subject				
	The module helped me learn how to write a structured argumentative writing	3.85	28(68.2)	5(12.1)	8(19.5)
	The module helped me learn how to offer argumentative peer feedback	3.56	25 (60.9)	7(17.07)	9 (21.9)
	The module helped me learn essential elements of a sound argumentative writing	3.82	30 (73.1)	3(7.3)	8(19.5)
Perceived usefulness of peer feedback	Peer feedback was helpful for essay essay	3.82	30(73.1)	4(9.7)	7(17.07)
	Peer feedback was as valuable as the teacher's feedback	3.82	17(17.07)	14 (34.1)	10 (24.3)
	Peer feedback helped me to better structure my argumentative writing	3.60	25(60.9)	4(9.7)	12 (29.2)
	I learned when I provide feedback on my peers' argumentative essays	3.90	31(75.6)	4(9.7)	6 (14.6)
	I learned when I received feedback from my peers on my argumentative writing	3.70	28 (68.2)	7(17)	6(14.6)

CHAPTER 5

5. Discussion

This study investigates students attitudes toward motivation,satisfaction and perceived learning, while using online peer feedback in the essay writing. Researchers, educators, and other professionals are interested in determining if e-learning may provide superior academic outcomes. Only by analyzing student happiness and motivation can the issue be resolved. The findings of this study demonstrate the significance of cause in online learning. We discovered that online peer evaluation influences students' motivation, contentment, and perception of learning favourably. These results are consistent with previous research (Barbour & Reeves, 2009; Hsu, Wang, & Levesque-Bristol, 2019; Nelson, Oden, & Williams, 2019). The findings of this study are crucial in light of past research. Keengwe, Diteeyont, and Lawson-Body (2012) stated that students' educational expectations impact the instructor's design of successful technological tools in e-learning courses and are necessary to comprehend the level of satisfaction construct.

According to the conclusions of the analysis, the factors that had the most important influence on one's level of contentment were the ease with which one could learn and the effectiveness of various e-learning systems. In addition, the findings point to a significant connection between the classes of motivation among students and the degree to which they report enjoying their educational experiences. Student satisfaction is found to be affected by and related to a student's motivation to learn, as was discovered by Gunawardena et al. (2010), Artino (2007b), and Shen et al. (2013). These findings are congruent with those of the forenamed researchers. According to the conclusions of this

study, self-efficacy in online learning is the most resultant factor that predicts perceived learning in online contexts and is also the most significant contributor. Students who keep frequent, high-quality contact with their classmates report higher levels of student satisfaction and learning perception. This includes asking and responding to questions, getting responses, and participating in online arguments. Due to the lack of face-to-face contact, peer feedback is essential in online learning scenarios. Students perceived learning outcomes and student satisfaction have previously investigated (Gray & DiLoreto, 2016; Ikhsan et al., 2019; Richardson & Swan, 2003). In several circumstances and courses, favourable sensed knowledge results are produced by several factors. This study was distinct from others in that it assessed students' views of learning via online feedback. Students perceive interaction in class, learning motivation, course content, and the function of online peer feedback as critical contributors to excellent learning outcomes. Positive learning results also influence student satisfaction. A future study should be performed to have a more suitable performance of the relationship between technology adoption and student perceptions of learning and happiness.

CHAPTER 6

6. Conclusion

This study illustrates the level of student motivation and satisfaction in an online learning environment in the context of writing argumentative essay. The plurality of the course's reviews reveals excessively high levels of excitement and contentment on the part of the students. It may be deduced from the level of the usefulness and fairness of student peer feedback and student motivation and satisfaction that student peer feedback has a beneficial effect on these two crucial aspects of the curriculum. In classrooms where students are required to write argumentative essays, the findings suggest that online peer review could be used to increase the overall quality of the educational experience and supplement the efforts of the instructor to boost student motivation and contentment.

In this study, we studied the level of student satisfaction, attitude and perceived learning levels on received online feedback in argumentative essay writing however, we did not investigate the effect of feedback characteristics on students' ability to write essays. In potential future research, it would be fascinating to examine how students' perspectives on peer feedback were affected by whether they received or offered comments. In the writing essays for students, this can shed some insight into the important roles of the student and teacher in the feedback process, also its influence on the students' perspectives of peer feedback. Additionally, it would be beneficial to find the impact of other important characteristics, such as students' language, their nationality, and culture, on the motivation and happiness of students who acquire online peer

evaluations in the course of future research. This would be an area that might be investigated.

6.1. Future studies

Within the context of students composing argumentative essays with the assistance of online peer evaluation, the aim of this study is to evaluate the role of students' levels of motivation and pleasure on their perceptions of how much they had learned. Understanding the main components of perceived learning results may be facilitated by providing some thought to the class that professors play as a technique of mediating variables. Additionally, We used quantitative data analysis in our research into the influence that online peer feedback has on an individual's perception of their level of learning. Nevertheless, we acknowledge that qualitative analysis can improve the decisions of the study.

Since peer feedback includes an internal process in which students reflect on their minds by critically reading and reflecting on peers' argumentative essay writing (Huisman et al., 2018), it is recommended that future research examine individual factors such as gender, culture, previous experiences, and knowledge to students' attitudes towards peer feedback. Further, additional study on peer feedback views and responses to various implementation components is necessary

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Appendix A: List of Abbreviations

- AI -- Artificial Intelligence
- E-learning -- Electronic Learning
- EFL -- English as a Foreign Language
- ESL -- English as a Second Language
- CALL -- Computer-Assisted Language Learning
- CBA -- Computer-Based Assessments
- LMS -- Learning Management System

Appendix B: Questionnaire (students attitude toward satisfaction, motivation, perceived learning)

Item	Content	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Perceived effects on the domain-specific learning outcomes						
1	The module was useful for learning about different perspectives on the controversial issue					
2	The module broadened my knowledge of the topic					
3	The module deepened my knowledge of the topic					
4	The module helped me learn the pros and cons of various arguments for and against the topic					
5	Overall, I am satisfied with my learning in this module					
Perceived effects on the domain-general learning outcomes						
6	The module helped me learn how to elaborate on the various pros and cons of the topic					
7	The module helped me learn how to defend and support my opinion on the topic					
8	The module helped me learn how to integrate various perspectives on the topic					
9	The module helped me learn how to write a structured argumentative essay					
10	The module helped me learn how to offer argumentative peer feedback					
11	The module helped me learn essential elements of a sound argumentative essay					
Perceived usefulness of peer feedback						
12	Peer feedback was helpful for argumentative essay writing					
13	Peer feedback was as valuable as the teacher's feedback					
14	Peer feedback helped me to better structure my argumentative essay					
15	I learned when I provided feedback on my peers' argumentative essays					
16	I learned when I received feedback from my peers on my argumentative essay					
Ease of use of the module						
17	Working on various parts of the module was easy, clear, and understandable					

- 18 I had no technical problems working on the
module
- 19 It was easy to work with various
functionalities of the module
- 20 It was easy to navigate through the module
- 21 Overall, the module was user-friendly
- Satisfaction with the learning task
- 22 I enjoyed working on the module
- 23 The description of the assignments and
instructions was clear and understandable
- 24 The time allocated for carrying out various
parts of the module was sufficient
- 25 The workload of the module was adequate
- 26 The module was not boring
- 27 I would like to follow such a module to
learn a range of subjects and topics
- 28 The use of such a module should be
encouraged in education
- 29 Overall, I am satisfied with how much I
learned in this module
- Perceived fairness of peer feedback
- 30 The feedback I received from my peers on
my argumentative essay was fair
- 31 I deserved the feedback I received from my
peers on my argumentative essay
- 32 The feedback I received from my peers was
as fair as the teacher's feedback
- 33 I am satisfied with the level of fairness of
feedback I received from my peers
- Perceived motivation/enjoyment of peer feedback
- 34 I enjoyed giving feedback on my peers'
works
- 35 I enjoyed receiving feedback from my
peers on my works
- 36 Peer feedback activities motivated me to
engage in learning assignments
- 37 I felt proud when I receive positive peer
feedback on my works
- 38 I felt comfortable giving critical feedback
on my peers' works
-

Appendix C: Module instruction

Dear students,

Welcome to the Argumentative Essay Writing module. The Argumentative Essay Writing module is designed to improve the level of your written argumentative essays and opinion papers. Writing high-quality argumentative essays on controversial issues is a key skill for you as a higher education student. In this module, you are supposed to learn how to engage in scientific debates and write argumentative essays on controversial issues in your field with solid argumentation and logical reasoning. In this module, you will also learn how to provide high-quality argumentative feedback on your peers' written argumentative essays.

The Argumentative Essay Writing module will be conducted in three consecutive weeks and you are asked to complete three tasks in this module. For the first week, you are asked to write an argumentative essay on one of the three provided topics in FeedbackFruits (task 1). For the second week, you are asked to provide feedback on two of your peers' argumentative essays based on the given criteria embedded in the FeedbackFruits (task 2). For the third week, you are asked to revise your essay according to the two feedback sets you received from your learning peers (task 3) and fill out the survey.

Below, an overview of the module process with deadlines is provided.

- **Task 1:** Original argumentative essay writing in FeedbackFruits (submission deadline: --)

- **Task 2:** Peer feedback based on the rubric and comments criteria in FeedbackFruits (submission deadline: --:--)
- **Task 3:** Revised argumentative essay writing (submission deadline: --:--)
- **survey:** Completion of survey (submission deadline: --:--)

Please be informed that the Argumentative Essay Writing module has a research set-up meaning that we collect various data to study the effectiveness of designed supported online peer feedback on students' argumentative essay writing. The collected data will be used only for research purposes and no identifiable and personal information of any student will be revealed or published. We make sure that for research purposes no one can trace this data back to any student. Nonetheless, in case you have any objection to the use of such data, please contact (kazem.banihashem@wur.nl) and we will make sure that your data will be omitted for research purposes.

Important notes:

- Please be noticed that this is a module for learning and it is necessary to complete all tasks with sufficient quality to pass this module.
- Read the guidelines and instructions very carefully. This is a digital module and therefore all the instructions are embedded in the module.
- Please use the English language for all parts of the module including argumentative essay writing and peer feedback.

- Please accomplish each part of the module within the proposed time and deadline. There is a specific timeline for each part of the module and you must stick to the proposed time.
- For further questions please feel free to contact us at (kazem.banihashem@wur.nl)

Task 1

Instruction for task 1,

Writing argumentative essays (sometimes called position papers, opinion papers, etc.) on controversial issues in your field is a way to actively participate in the scientific and/or public community. An argumentative essay is a genre of writing that requires the student to investigate a topic; collect, generate, and evaluate evidence; and establish a position on the topic concisely. Writing argumentative essays on controversial topics requires a clear position on the issue at hand supported with logical evidence, followed by refuted counter-arguments against the original position, and a general conclusion on the issue.

For task 1, you are supposed to write an argumentative essay on one of the three provided topics below. In your argumentative essay, you should take a position and provide arguments why you are in favor or against something. Please be noticed that the word limit for this argumentative essay is 600 to 800 words (excluding references) and the essay must be written individually. Your essay will be tested against plagiarism.

Please choose one of the following topics for your argumentative essay:

- Topic 1.
- Topic 2.
- Topic 3.

Please do not forget to submit your argumentative essay in the "submission" section in FeedbackFruits by --:--.

Task 2

Instruction for task 2,

For task 2, you are requested to provide feedback on the argumentative essays of two learning partners based on the rubric criteria and comments criteria provided in the "given reviews" section in FeedbackFruits.

Please be noticed that for the comments criteria, the word limit of comments is min-20 and max-80 words per each criterion.

Based on the rubric criteria, please give a mark between zero to three for the quality of that specific element of the argumentative essay. Please do not use any in-text comments and only answer the questions within the word limit.

Please do not forget to submit your peer feedback by --:--.

Task 3

Please submit your revised argumentative essay by Wednesday, 7th of April, 2021 - at 18:00. Please do not forget that your revised essay must be written individually and it should be between 600 and 800 words excluding references.

Course and Demographic Data

What is the name of the course you take?

- HSO-10306 “Global Health”
- FHM-61312 “Food Safety Management”
- NEM-32806 “Dilemmas in Food Safety and Security”
- ELS-66600 “Academic Argumentation in Scientific Writing and Debate”
- ENR-20306 “Environmental Economics and Environmental Policy”
- Are you a bachelor's or a master's student? ☐ Bachelor ☐ Master

What is your age?

What is your biological gender? ☐ Male ☐ Female

What is your WUR email address?

Have you so far followed any argumentation course: ☐ Yes ☐ No

