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Peer tutoring and peer feedback: Effective methods of support for students in the academic environment

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Abstract

This paper investigates the challenges faced by contemporary universities and highlights the need for innovative educational strategies in response to social, cultural, and environmental changes. As the Internet shifts the role of educators from sole knowledge providers to facilitators of student-centred learning, peer tutoring and peer feedback emerge as pivotal methods for enhancing academic success and personal growth.

Central to this discussion are two case studies from the University of Groningen's Masters of Didactics program in 2022-2023, which illustrates a practical application of these strategies. The paper also reviews theoretical foundations of these methods, drawing on constructivist learning theories and Zone of Proximal Development. Key elements for successful implementation of the strategies discussed in the case studies include trained tutors, well-informed students, structured sessions, personalized support and continuous feedback. These characteristics not only enhance the learning experience but also cultivate essential interpersonal skills.

Our findings underscore the positive impact of integrating peer tutoring and feedback on student engagement, collaboration, and academic performance. This paper advocates for the widespread adoption of these pedagogical approaches in higher education, emphasizing their role in creating an inclusive and effective learning environment that prepares students for future academic and professional challenges.

Keywords

Masters of Didactics, peer tutoring, peer feedback, higher education

Tutoring rówieśniczy i feedback rówieśniczy: Efektywne metody wsparcia studentów w środowisku akademickim

Abstrakt

Niniejszy artykuł odnosi się do wyzwań, przed którymi stoją współczesne uniwersytety i podkreśla potrzebę innowacyjnych strategii edukacyjnych w odpowiedzi na zmiany społeczne, kulturowe i środowiskowe. W miarę jak Internet zmienia rolę edukatorów z wyłącznych źródeł wiedzy na moderatorów uczenia się skoncentrowanego na studencie, tutoring rówieśniczy i feedback rówieśniczy stają się kluczowymi metodami wspierania sukcesów akademickich i osobistego rozwoju.

Centralnym elementem niniejszej dyskusji są dwa studia przypadków zrealizowane w ramach programu Masters of Didactics na Uniwersytecie w Groningen w latach 2022-2023, które ilustrują praktyczne zastosowanie omawianych strategii. Artykuł przedstawia również teoretyczne podstawy tych metod, opierając się na konstruktywistycznych teoriach uczenia się oraz koncepcji strefy najbliższego rozwoju. Kluczowe aspekty skutecznej implementacji strategii opisanych w studiach przypadków obejmują zaangażowanie wykwalifikowanych tutorów, odpowiednio przygotowanych studentów, dobrze zorganizowane sesje, spersonalizowane wsparcie oraz ciągłe przekazywanie informacji zwrotnych. Elementy te nie tylko wzbogacają proces uczenia się, lecz także wspierają rozwój kluczowych umiejętności interpersonalnych.

Nasze doświadczenia podkreślają pozytywny wpływ integracji tutoringu rówieśniczego i feedbacku rówieśniczego na zaangażowanie studentów, współpracę i wyniki akademickie. Artykuł opowiada się za szerokim wprowadzeniem tych podejść pedagogicznych w szkolnictwie wyższym, podkreślając ich rolę w tworzeniu inkluzywnego i skutecznego środowiska edukacyjnego, które przygotowuje studentów do przyszłych wyzwań akademickich i zawodowych.

Słowa kluczowe

Mistrzowie Dydaktyki, tutoring rówieśniczy, feedback rówieśniczy, edukacja wyższa

1. Introduction

The contemporary university, as an educational institution, must meet the challenges posed by the social, cultural, and environmental changes of the modern world. Consequently, adjustments in the academic didactic approaches have become necessary. A primary reason for this shift is the advent of the Internet, which has rendered teachers no longer the sole source of information and has provided relatively easy access to a vast amount of information. However, for academic instructors, who are responsible for passing both knowledge and skills to their students, the focus remains steadfastly on the students themselves.

Supporting students, particularly through implementation of peer tutoring, is pivotal in advancing both academic success and personal development. Peer tutoring, defined as a process wherein students assist one another in comprehending and mastering course material, cultivates a collaborative learning environment that yields substantial benefits for both the tutor and the tutee. This pedagogical approach not only consolidates the tutor's knowledge and bolsters their confidence but also offers the tutee tailored and relatable guidance. Moreover, peer tutoring fosters a sense of community and belonging, motivating students to actively engage in their educational journey and to hone essential interpersonal skills. By capitalizing on the strengths and perspectives of their peers, students in a peer tutoring framework contribute to a dynamic and supportive academic milieu, ultimately facilitating their own comprehensive development.

Another crucial support method in higher education is peer feedback. This method involves students providing constructive comments on each other's work, thereby fostering mutual learning and continuous improvement. The process helps students gain diverse perspectives and enhances their critical thinking and self-reflection skills. Through peer feedback, students actively contribute to their peers' learning while also improving their own assessment abilities. This approach promotes greater academic independence and self-regulation. Furthermore, peer feedback encourages collaboration and respect, empowering students to communicate effectively and appreciate different viewpoints. By integrating peer feedback into the academic environment, students benefit not only from peer tutoring but also from a richer, more holistic approach to learning and personal growth.

As follows, the research question of the current work assumes that peer tutoring and peer feedback exemplify effective educational strategies that are applicable in the academic environment. The following sections, then, will focus on the two aforementioned support methods for students. Each of these projects is presented systematically: first, teaching philosophy statements will be provided, offering individual reflections on academic didactics from the perspective of academic instructors. Finally, each project is described individually, accompanied by post-project comments and reflections.

2. Tutoring - the review of concepts and approaches

Tutoring in higher education has evolved into a sophisticated pedagogical practice that is integral to student success and institutional effectiveness. One of the fundamental assumptions of tutoring in higher education is derived from the constructivist learning theory, which posits that learners construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences (Fosnot and Perry 2005). In consequence, what becomes prominent is active engagement and interaction, suggesting that students learn more effectively when they are involved in the learning process rather than passively receiving information. Yet, in Vygotsky's concept of the Zone of Proximal Development (ZPD) seems critical to the practice of tutoring since it suggests that learners can achieve higher levels of understanding and skill when they receive guidance from someone more knowledgeable (Vygotsky 1978). As follows, in the context of higher education, tutors help bridge the gap between what students can do independently and what they can achieve with assistance.

Identifying and eventually filling this gap means scaffolding, which as another key assumption, involves providing temporary support to students until they can perform tasks independently. This concept is central to effective tutoring, where the tutor's role is to gradually remove support as the learner becomes more competent (Wood, Bruner and Ross 1976). In context of higher education, this often translates to tutors helping students develop study skills, understand complex concepts, and build confidence in their abilities.

Additionally, what seems also crucial as far as the focus of the current work is concerned, tutoring (as well as peer feedback) in higher education also assumes that learning is enhanced through peer interaction and collaboration. As peer learning theories suggest, students can benefit significantly from learning with and from each other (Boud et al. 2014) and tutors, often peers themselves, provide a relatable and supportive learning environment that encourages collaboration and mutual learning.

Moreover, one can enumerate the following elements that contribute to successful tutoring sessions:

- a. trained tutors: qualified teachers/ tutors who are equipped with the necessary pedagogical skills, content knowledge, and interpersonal abilities to support their peers effectively, namely knowledgeable at communication skills, tutoring strategies, and methods for providing constructive feedback (Colvin 2007);
- b. structured tutoring sessions: well-prepared meetings are essential for maximizing learning outcomes. As Topping (2009) points out, these sessions often follow a specific format that includes goal setting, active engagement in learning activities, and review of progress, which ensures that the sessions are focused and productive, providing a clear framework within which learning can occur;
- c. personalized support: personalization is a hallmark of effective tutoring in higher education because tutors tailor their support to the individual needs of each student, addressing specific challenges and learning styles (García and Cohen 2012) mostly to allow students to grasp difficult concepts, develop critical thinking skills, and improve academic performance;
- d. feedback and reflection: continuous feedback and opportunities as integral elements of tutoring help students understand their strengths and areas for improvement, while reflection encourages them to think critically about their learning processes (Hattie and Timperley 2007);
- e. accessibility and inclusivity: a diverse student population can benefit from tutoring programs since these programmes aim to be accessible and inclusive, offering accommodation to different learning needs, cultural backgrounds, and academic disciplines (Thompson and Mazer 2012).

The above characteristics provide grounds for the application of tutoring in higher education, whose most significant goal is to provide academic support in such scope that includes tutors' assistance in understanding course material, preparing for exams, and completing assignments (Simão, Flores, Fernandes and Figueira 2008). Such support for students enhances also study skills, including time management, note-taking or possibly test preparation strategies, which beyond doubt are essential for academic success and allow students to become more independent and effective learners.

2.1. Peer tutoring

Taking into consideration the subject of the present work, special attention should be paid to peer-assisted learning strategies, among which peer tutoring occupies the central position. In addition to academic support provided by teachers-tutors, tutoring programmes often include peer tutoring where the role of a teacher is taken over by a fellow student. To be more precise, peer tutoring is an educational strategy that leverages the power of collaboration among students to enhance learning outcomes and, as in the case study below, it seems crucial for supporting at-risk students who may be struggling academically, socially or personally.

As far as core elements of peer tutoring are concerned, they include, similarly to tutoring:

- 1. structured interaction: clear guidelines and structured activities, which according to Topping (2009) help ensure that the tutoring sessions are productive;
- 2. role assignment: specific roles (a peer tutor and a peer tutee) are assigned, with each participant understanding their responsibilities (Duran 2017);
- 3. training: both peer tutors and peer tutees often require training in communication, instructional strategies, and feedback provision (Fuchs et al. 1994);

4. feedback mechanisms: regular feedback from both peers and supervisors helps in improving the effectiveness of the sessions (Cohen, Kulik and Kulik 1982).

Yet, peer tutoring differs from tutoring in one feature, namely in peer tutoring a significant role is ascribed to the teacher/supervisor who, on the one hand, is responsible for tutors and tutees training and, on the other hand, provides continuous assessment of the tutoring process and outcomes to ensure that the objectives of the program are being met (Goodlad and Hirst 1989). Moreover, according to Colvin (2010), peer tutors frequently take roles of mentors who provide guidance on navigating university life, balancing academic and personal responsibilities and accessing campus resources. Such strategy allows for developing not only skills connected with students' academic career, but also it strengthens social bonds among groups of students and promotes collaboration among them. This holistic support helps students adjust to the demands of higher education and fosters a sense of community and belonging.

As it has been presented above, tutoring and peer tutoring in higher education are multifaceted practices that rest on key educational assumptions, incorporate essential elements and have wide-ranging applications. The effectiveness of tutoring and peer tutoring is underpinned by constructivist learning theories, the principles of scaffolding, and the benefits of peer collaboration. Consequently, core elements such as trained tutors, structured sessions, personalized support, continuous feedback, and inclusivity are critical for the success of tutoring programmes. The applications of tutoring and peer tutoring are diverse, encompassing academic support, study skills development, writing assistance, peer mentoring, support for at-risk students, online tutoring, supplemental instruction, and preparation for graduate and professional exams.

3. Peer feedback – the review of concepts and approaches

One of the factors connected with tutoring or peer tutoring strategies is related to the way the work of tutees is evaluated, which means providing feedback by tutors. Since the major interest of the present work is also focused on the question of peer feedback, the following part aims at presenting key points by means of which peer feedback is recognized.

Peer feedback has gained prominence in higher education as a powerful pedagogical tool that enhances learning outcomes, fosters critical thinking, and promotes collaborative learning. Namely, peer feedback refers to the process by which students provide evaluative comments on each other's work or performance by involving students acting as both evaluators and recipients of feedback, facilitating a reciprocal learning experience. What follows is the strategy where peer feedback engages both parties in a constructive dialogue and interaction to enhance understanding and performance (Nicol 2010). This interaction takes various forms, from written comments on essays to oral feedback in presentations and collaborative projects.

Moreover, peer feedback, similarly to peer tutoring is rooted in the constructivism learning theory, according to which learners actively construct their knowledge thorough experience and interactions. Consequently, learning is a social process and understanding is built through cooperation and discussion (Fosnot 2005) and it is embodied in encouraging students to involve in each other's work critically and constructively. Additionally, peer feedback and peer tutoring share another common ground, which is the practice. Following Vigotsky's Zone of Proximal Development (1978), which represents the difference between what learners can do independently and what they can achieve from a more knowledgeable peer, peer feedback allows students to advance their comprehension skills by bridging gaps in knowledge and proficiency.

Furthermore, peer feedback is based on the assumption that evaluating others' work by means of formative assessment promotes metacognitive development, which according to Nicol and Macfarlane-Dick (2006) requires from students to reflect on the criteria for high-quality work, self-regulatory skills and critical thinking. Moreover, this reflective practice is essential for developing a deeper understanding of academic standards and improving self-assessment capabilities. In consequence, peer feedback forwards positive interdependence by encouraging students to support each other's learning, creating a collaborative academic environment that is beneficial to all participants.

As has been presented thus far, peer feedback's goal is to consolidate students' knowledge and gain new insights from their peers' perspectives and as a result enhance the process of learning. Besides, evaluating peers' work requires students to apply analytical skills, assess the validity of arguments, and finally provide constructive criticism. Additionally, through the process of giving and receiving feedback, students learn to monitor their own learning, set goals, and make adjustments to improve their performance. Among other goals, peer feedback aims to build interpersonal and communication skills since providing feedback requires clear, respectful, and constructive communication, which is valuable in both academic and professional settings. Finally, peer feedback promotes collaborative learning by encouraging students to work together, share ideas, and learn from each other, which results in a sense of community and mutual support, influencing positively motivation and engagement in the learning process.

As far as practices are taken into consideration, peer feedback, similarly to peer tutoring, is organized in structured peer review sessions that involve students exchanging work and providing feedback based on specific criteria and guidelines. Hence, this strategy to be effective requires training and preparation, which means that students need to be taught how to provide constructive criticism, use feedback rubrics, and engage in reflective dialogue (Nicol et al. 2014). This helps to ensure that the feedback given by a fellow student is of good quality. What is more, an issue that is frequently mentioned in context of peer feedback is the question of anonymity that as Lu and Bol (2007) point out can be a valuable practice, encouraging honesty and reducing bias. Because of the fact that anonymity helps mitigate the influence of personal relationships and social dynamics, students may feel more comfortable providing just comments that lead to more genuine and useful feedback. Finally, self-reflection on the feedback process encourages students to improve their own evaluative skills By reflecting on the feedback they give, students become more aware of their biases and areas for growth.

Furthermore, when discussing possible means of providing feedback, one cannot ignore the role of technology. Gikandi et al. (2011) highlight that using technology plays a significant role in facilitating peer feedback, especially in online and blended learning environments. It means that digital platforms and tools enable asynchronous feedback, allowing students to review and comment on each other's work at their convenience and support the organization and management of peer feedback processes.

One of advantages of peer feedback is the fact that reflective dialogue and iterative revision are crucial practices in receiving, asking for clarification or considering how to incorporate suggestions into students' works (Gielen et al. 2010). Also, studies have shown that students who engage in peer feedback perform better academically, demonstrating improved understanding and higher-quality work (Falchikov and Goldfinch 2000). Another point is that by reflecting on feedback, students learn to monitor their own performance, set goals, and make adjustments to improve their learning (Nicol and Macfarlane-Dick 2006). Additionally, providing and receiving feedback requires clear, respectful, and constructive communication valuable in both academic and professional settings by means of productive dialogue, negotiating meanings and handling criticisms constructively. Lastly, as Falchikov (2005) mentions, peer feedback is a cost-effective and scalable solution for providing formative assessment and feedback in higher education since peer feedback offers a sustainable way to provide high-quality feedback to a large number of students.

Summing up, peer feedback is a powerful pedagogical tool that plays a crucial role in higher education. Grounded in the constructivist learning theory, Vygotsky's ZPD, and social interdependence theory, it assumes that learning is an active, social process. As far as the goals and advantages of peer feedback are concerned, they include enhancing learning and understanding, developing critical and analytical thinking skills, fostering self-regulation and metacognition, building interpersonal and communication skills, and promoting collaborative learning. In addition, effective practices of peer feedback involve structured peer review sessions, training and preparation, anonymity in feedback, the use of technology, and reflective dialogue and iterative revision.

4. Case study

The following part is centred around two educational strategies that, as the research question assumes, are supportive tools for students in the academic environment. Both of these strategies were part of the Masters of Didactics- Advanced Teaching Qualifications Training realized in 2022-2023 by the University of Groningen and supervised by the Polish Ministry of Education. The presentation of the projects begins with Teaching Philosophy Statements, left as written originally in the first person singular, since this reflective approach to academic didactics serves as a driving force for the implementation of these projects. Next, stages and achievements of the projects are provided with final conclusions that propose a broad educational context for higher schools and benefits that may derive from introducing these projects on a large scale.

4.1. Peer tutoring project

4.1.1 Teaching Philosophy Statement of a supervisor of peer tutoring project

Actually, one of the reasons for my being a teacher is that I like working with students. It is important for me to observe and follow their development along with the improvement of their skills. But also it is a good lesson for me since I can see if my methods really work. I hope that I manage to give them enough support to become good professionals and to enjoy their studies. Yet, I do not want to be to them 'another mother' or 'a friend' because to me a teacher's role is a completely different one- a guide in their metaphorical journey to professionalism and knowledge. That is why I approach my students with respect but constantly I remind them of my role. What follows, my role is inevitably connected with passing knowledge in the way that is the most appropriate both for the course and for the students. That is why I do care about innovations and technology that can come in handy. One of the reasons is that most of my courses require a computer lab and what results from this fact is that I can have a relatively easy access to a number of tools and software.

As far as the very teaching is concerned, I particularly value applications useful for self-studying and testing. Additionally, if it is possible my students are invited to join some extracurricular activities that are connected with language and linguistics. Those of them who are at my MA seminar in linguistic aspects of NLP are encouraged to use my articles if the articles meet the topic of their thesis. Since I started my teacher training programme some time ago, the question that I have had to answer relatively often is why I do things this particular way. I suppose the response to it is that I have worked this way out for many years of teaching experience. It means that if in my opinion things did not work they way I wanted, I modified either my methods or the contents of my courses. Nowadays, I think that I pay more attention to feedback from my students and since this feedback is good, I have evidence that the way I do things is a suitable one.

Without any doubt, the dream of every teacher is to have some positive impact on future lives of our students. One of the examples that proves my teaching impact is my former NLP student-Kamil with whom till present times I have been in touch. He has made a huge carrier in one of international companies dealing with AI solutions. Although he is a busy man, he still finds time to come to my students regularly to have a workshop on regular expressions with them. Each time he starts his speech he begins: "if it hadn't been for my teacher [now my name is mentioned]..." and it means a lot to me that my former students speak highly of me. Another piece of evidence of my teaching impact could be last year elective course on metaphor as an interdisciplinary phenomenon. When I asked my students about a metaphor by means of which they would describe me as their teacher – they said that I was a bird with beautiful feathers whose singing would always attract attention but at the same time I showed them that they could fly even if they didn't have wings. Isn't it a beautiful metaphor for the role of teacher in students' life?

Now, with time and gained experience I look at teaching from a completely different perspective. First of all, the role of a teacher shifted from the major source of knowledge to the person who shapes or carves the character and attitudes of students. This change is partly justified by the fact that nowadays the access to knowledge is much easier and students are encouraged to look for necessary information on their own. The teacher's role is more that of a quide who metaphorically takes students on an exciting journey to interesting places, shows them these places and routes as well as how to get there. That is exactly how I feel about teaching- a challenge that is to be met, issues that are to be solved and finally enjoyment connected with self-development (both of me as a teacher and my students). Thus, this teacher-student relation is a bond in which both parts are mutually interdependent. Thus, as my teaching philosophy depicts, the relationship between me as their teacher/ mentor and my students is in the centre of my teaching duty. However, nowadays when observing my students I can see that they need guidance and support in their whole academic career and my impression is that they in a way expect a helping hand from the system. Yet, bearing in mind the amount of academic and administrative duties that academic teachers nowadays have to face, I found it difficult to offer them my support to the extent they needed it. That is the reason for looking for other options of assistance from which my students could benefit. Finally, I decided to propose a peer tutoring formula

as an educational strategy for supporting students and enhancing their academic career.

4.1.2 Peer tutoring – project overview

The research question for the present article is partly focused on how peer tutoring enhances academic achievement of MA students. Then, the major assumption of the project was to help struggling students overcome the problems with the linguistic knowledge gap and, additionally, to form peer supportive relations that lasted after the finalization of the project. Another assumption of the project was the activisation of students where they started to be responsible for their own educational path and in consequence take over the role of teachers/mentors for their peers.

This Peer Tutoring Project was realized for the first time during the winter semester of 2022/2023 academic year (it continued in the winter semester of 2023/2024) at the Institute of English and American Studies at the University of Gdańsk, Poland. It was dedicated for NLP MA students without any linguistic background who undertook these studies and who, because of their non-philological experience, struggled with linguistic courses. In 2022/2023 two peer tutors, two peer tutees and a supervisor took part in the project. At the beginning peer tutors and peer tutees were trained as to their roles in the project, the goal of the project and the expected outcomes were clearly stated - the goal of the project was to help students to acquire basics connected with linguistics and the expected outcome was to pass a linguistics semester test. Peer tutors and peer tutees were given carte blanche by their supervisor as to organizing their timetable and precise didactic methods. It is also worth mentioning that peer tutors worked voluntarily for the benefit of their peer students.

4.1.3 Peer tutoring - results/questionnaires

The cooperation of peer tutors and peer tutees in the project resulted in tutees passing their semester test in linguistics. At the beginning of the project and after finalizing of the project both peer tutors and tutees filled in a questionnaire, the results of which are demonstrated below.

4.1.3.1 Peer tutors' perspective/perceptions

Preliminary questionnaires:

a. Peer tutor 1

2. What results do you expect to achieve?

I hope to be of help and support to those who need it, to make peer mentoring more common at least at the University of Gdańsk. I believe that such a project will make me feel more confident in tutoring as well.

3. What are advantages and disadvantages of taking part in such project?

The biggest advantage is the satisfaction, the feeling that I have helped someone and have actually made it easier for someone to make it through their studies. The disadvantage is the difficulty of finding the time that is convenient for both sides, and the risk that unfortunately my support and help may not be enough.

b. Peer tutor 2

2. What results do you expect to achieve?

It is my hope that the time spent mentoring a fellow student will help him succeed academically and gain a thorough understanding of the covered material. Moreover, I would like for this cooperation to result in more students taking part in the project in the future.

3. What are advantages and disadvantages of taking part in such project?

Being a part of the project will allow me to gain more teaching experience. It is also gratifying to create a support system for a peer and see them better their understanding of linguistics.

However, student mentors may become overwhelmed with having to find the time for helping a fellow student and preparing for their own studies.

Post-project questionnaires:

Peer tutor 1

2. What results did you achieve? Are you satisfied with your results?

I believe most of the results I intended to achieve have been delivered. I think we were able to help and support the students at the beginning of their struggles, I also gained more confidence in my teaching abilities. Although I believe that with even more student involvement, even better results could be achieved.

3. What are advantages and disadvantages of taking part in such project?

There is a great advantage in feeling that you have helped someone through similar difficulties that you had been going through yourself. It is a nice feeling to know that you are able to effectively share your knowledge. It is also a great advantage to make friends with people from the same field of study, and such acquaintance does not at all have to last only for the period of peer mentoring.

However, such an undertaking is not without its drawbacks and possible problems. A major difficulty has been finding meeting dates that suit everyone. Even if a student found time for the meeting itself, he or she did not have it earlier to prepare for our talk. This is a difficult issue to resolve, as no one can extend the 24-hour day, but more goodwill and some sacrifice would have been welcome.

Peer tutor 2

2. What results did you achieve? Are you satisfied with your results?

I am satisfied with the results we achieved in the project, as I feel that the students have gained an understanding of linguistic notions covered during our meetings. Such cooperation created a support system in which they could ask for help with any theory they found problematic.

3. What are advantages and disadvantages of taking part in such project?

This project certainly has its advantages – I believe that the students improved their linguistic skills during the course of our meetings. Seeing them pass their exams has brought a feeling of great satisfaction. Moreover, the project created an opportunity to better my didactic abilities, as well as gain teaching experience.

The biggest disadvantage of the project is that it requires for the participants to sacrifice a lot of their time – a thing they commonly lack. Unfortunately, this resulted in the students not being properly prepared for the meetings, or not completing the tasks they were asked to do. Overall, such projects require both parties to be involved in order to be most effective.

4.1.3.2 Peer tutees' perspective/perceptions

Preliminary questionnaires:

a. Tutee 1

1. Why do you want to take part in this project?

I would appreciate having help with new subjects that I have envalled in and adapting to hinguistic-type courses that are especially new for me.

2. What results do you expect to achieve?

b. Tutee 2

1. Why do you want to take part in this project?

I decided to participate in this project because it offered help in acquiring knowledge of a subject from the Fundamentals of General Linguistics.

2. What results do you expect to achieve?

I expect to have a better understanding of the subject and related concepts.

Post-projects questionnaires:

a. Tutee 1

This participant presented the post-project reflections in the form of a short film and that is why the extracts from the questionnaires are not provided below. In short, at the beginning he presented his motivation for taking part in this project, then he moved to advantages and disadvantages of peer tutoring from the perspective of a peer tutee. As far as advantages are concerned, the most important one is the fact that his knowledge of linguistics expanded which enabled him to pass the semester test. Also, he highlighted the role of a supervisor who had made him an offer of participation in this project and supervised the realization of the project. Yet, the disadvantage of this project was connected with the timetable since it required extra time on the part of the tutors and tutees. On the whole, he was more than satisfied with help and support that he obtained by means of participating in this project.

b. Tutee 2

2. What results did you achieve? Are you satisfied with your results?

My achievement after this project was a better understanding of the subject and passing it, so I am very satisfied with the result I achieved.

3. What are advantages and disadvantages of taking part in such project?

The advantages of participating in this project are the focus on the individual problems of the student who applied for this project, as well as the opportunity to practice a given problem until the student understands it. It can also be an advantage to participate in this project remotely and individually.

Personally, I do not see any disadvantages in connection with participation in this project.

4.1.4 Discussion

The questionnaires mentioned above reveal several prominent themes. Namely, from the initial perspective of peer tutors, the concepts of *help*, *support*, and *satisfaction* related to the development of their tutees' academic careers are particularly significant. However, difficulties and obstacles are also noted, primarily concerning *time management* and the *overwhelming with additional work*. Moreover, post-project comments highlight *satisfaction* from *helping peers* in their *academic success* as far as gaining both *knowledge* and *confidence* in their academic performance is concerned. The sole issue identified as requiring extra effort is the *sacrifice* of the tutors' own *time*.

Regarding the tutees' preliminary perspective, the recurring theme is assistance with *passing tests and exams*. This emphasis is unsurprising, as their academic progress is largely measured by grades obtained from these assessments. Post-project reflections indicate that tutees attribute their *academic success*, specifically *passing a semester test*, to their collaboration with peer tutors. The only minor disadvantage mentioned is the additional *time involvement*. Overall, however, tutees emphasize that the benefits gained far outweigh any inconveniences encountered during the project.

Thus, the aforementioned project elucidates several challenges currently confronting higher education. One significant issue is that, regardless of the academic career level considered, students—particularly those experiencing difficulties—often feel uncertain about how to improve their academic standing. Peer tutoring projects present a valuable opportunity for both tutors and tutees. Specifically, tutors benefit from the chance to review material in preparation for their final MA exams and relations with peers from different groups. Conversely, tutees receive essential assistance in passing exams and may even find a peer mentor to aid them in addressing other academic challenges. From any perspective, the advantages gained from these peer relationships are evident.

4.2. Peer feedback project

4.2.1 Teaching Philosophy Statement of a supervisor of peer feedback project

My pedagogical objectives are to cultivate teamwork and elucidate the role of communication in IT projects. Additionally, I aim to develop students' critical thinking and design thinking skills. I am a proponent of problem-based learning and believe that collaborative efforts often yield superior solutions. Through communication exercises of incrementally increasing complexity and by fostering mutual respect among students, I strive to create a classroom environment characterized by a fervent pursuit of success. I place strong emphasis on active participation and engagement.

My optimistic and energetic demeanor is intended to inspire my students. I believe it is essential that students find enjoyment in their studies. My classes require substantial analytical thinking and active student involvement. To maintain students engaged, I incorporate a diverse array of topics and exercises, as well as physical movement in the classroom. Students are encouraged to stand, change teams, and move around, which complements my own frequent movement during class.

By encouraging open dialogue and teaching the principles of constructive criticism, I strive to create a safe environment for students to practice communication skills. In group projects, I focus on solving problems aimed at improving people's lives, thereby fostering empathy and social awareness among students. Occasionally, I organize 'grand challenges' to encourage healthy competition. While I expect high-quality results, I also allow ample room for creativity by not requiring specific software or presentation formats.

I conclude each class with thought-provoking points, famous quotations or provocative ideas, to inspire deeper contemplation. Students also provide feedback on the most confusing aspects of the lesson, which we address in subsequent classes.

I am committed to continuous self-improvement and strive to instill this value in my students by providing them with enriching resources, such as videos and online courses, which are powerful educational tools. I also manage two mentoring programs that allow me to learn from fellow scientists and educators, helping me stay up-to-date with the latest teaching trends.

I am fortunate to work with many exceptional students at Highfliers School, which I founded three years ago. I also take great pleasure in supporting less prominent and often introverted students, who benefit immensely from the group IT projects I facilitate. It is particularly rewarding to see students, who initially doubted their ability to collaborate or speak publicly, ultimately succeed in the supportive environment of the classroom. Some team projects developed by students in my classes have even been recognized, such as at the West Pomeranian Film Festival.

4.2.2 Peer feedback – project overview

This paper explores the role of peer feedback and peer tutoring in fostering the academic success of university students. The primary objective of the Peer Feedback Project was to enhance students' teamwork and presentation skills while promoting a culture of collaborative learning and self-improvement. The initiative aimed to engage students actively in their education by encouraging them to critically evaluate their peers' work and provide constructive feedback.

The Peer Feedback Project was initiated during the summer semester of the 2022/2023 academic year at the West Pomeranian University of Technology in Szczecin, Poland and continued in the subsequent course cycle. The project specifically targeted Information Technology BSc students from diverse educational and cultural backgrounds who faced challenges in teamwork and presentation skills. During the initial cycle in 2022/ 2023, approximately 200 students participated in various peer feedback activities, both identifiable and anonymous. Training sessions at the start of the project outlined the roles, goals, and expected outcomes for participants. The main objective was to foster greater involvement in team tasks required to pass the course and to improve the quality of individual presentations, another course component. As anticipated, the project resulted in higher-quality submissions and more effective presentations.

The project employed two methods of peer feedback: identifiable feedback on paper was provided by assigned peer reviewers for individual student presentations, while anonymous live feedback was given online for team projects using features available on the Mentimeter platform (menti.com). It is noteworthy that while individual reviewers were randomly assigned to presenters, online peer reviewers participated voluntarily. The majority of students participated, motivated by a desire to assist their peers and enhance their evaluative skills.

4.2.3 Peer feedback - Outcomes and survey results

The collaboration in peer feedback led to significant improvements in the quality of team projects and individual presentations compared to previous student cohorts. However, the experiment did encounter some issues, particularly with anonymous feedback, which occasionally included unpleasant and unconstructive comments, an area that requires attention in the future.

Students completed surveys at the end of the term to provide feedback on the course, with specific remarks regarding peer feedback indicating that participants:

- enjoyed learning how to provide effective peer feedback and appreciated the feedback they received;
- enhanced their personal presentation abilities by learning from their peers' mistakes;
- developed better attention span and listening skills;
- built stronger peer relationships;
- actively engaged in team tasks;
- valued peer support and feedback despite the extra time required.

Some students noted additional stress associated with being reviewed by their peers rather than solely by the teacher. Interestingly, despite the presence of unpleasant comments in the anonymous feedback, students generally treated them with a degree of levity; thus, they treated identifiable feedback with more respect than the anonymous one.

4.2.4 Discussion

The surveys revealed key insights from students, who served as both reviewers and reviewees. As follows, students found value in learning to give and receive peer feedback, improved their presentation skills, enhanced their attention and listening abilities, strengthened peer relationships, actively engaged in team tasks, and appreciated peer support despite the additional time commitment. Yet, the primary concern raised was the added stress from an extra layer of assessment. Interestingly, another fact worth mentioning is that students respected identifiable feedback more than anonymous feedback. One of the reasons for their attitude could be the issue of the quality of constructive non-anonymous comments that definitely exceeded the anonymous ones.

The Peer Feedback Project highlighted several critical aspects of higher education. To begin with, students, particularly those struggling with presentation skills, often feel uncertain about how to improve their work. Additionally, peer feedback projects offer mutual benefits: reviewers develop critical evaluation skills and gain insights into best practices, while reviewees receive the support necessary to enhance their abilities and academic performance. By utilizing both identifiable feedback on paper and anonymous online feedback, a comprehensive peer evaluation process has been established. This project demonstrates that fostering a culture of peer support and constructive criticism can significantly improve the academic environment and outcomes for all participants, despite the additional commitment required.

5. Overall conclusions

To sum up, this paper has scrutinized the essential roles of peer tutoring and peer feedback as innovative educational strategies aimed at enriching student learning and development within higher education contexts. Moreover, by providing examples of successful educational projects related to the question of either peer tutoring or peer feedback, the research question has been answered by proving that these strategies, which are firmly rooted in constructivist learning theories, are indeed effective educational strategies to be applicable in the academic environment. Moreover, these educational tools leverage social interaction and collaboration among students. As has been mentioned above, peer tutoring serves as an effective method for bridging the gap between students' independent abilities and their potential with guidance, aligning with Vygotsky's Zone of Proximal Development. By providing structured sessions, personalized support, and ongoing feedback, peer tutoring cultivates a supportive learning environment that accommodates diverse learning needs and promotes academic independence (Wood et al. 1976; García and Cohen, 2012).

Furthermore, peer feedback, as a potent formative assessment tool, fosters metacognitive development and critical thinking skills among students. Grounded in theories of social interdependence and constructivist learning, peer feedback encourages students to engage in constructive criticism and reflective dialogue, thereby enhancing their capacity to assess and refine their own work (Nicol & Macfarlane-Dick 2006; Gielen et al. 2010).

Hence, these educational strategies facilitate not only surface learning but also deep learning, wherein students engage in meaningful inquiry, reflection, and application of knowledge. By actively participating in peer tutoring sessions and providing constructive feedback to their peers, students delve deeper into course content, develop a nuanced understanding of concepts, and internalize learning outcomes more effectively. Through these collaborative processes, students enhance their academic achievements and cultivate skills crucial for professional success.

One of the reasons for introducing peer tutoring and peer feedback into the higher education policy could be the fact that the integration of these strategies into educational practice enhances the learning experience by creating collaborative environments where students actively participate in their learning processes. Additionally, by leveraging the strengths and perspectives of their peers, students not only deepen their understanding of course material but also develop essential interpersonal skills. Furthermore, the teaching philosophies shared by the supervisors of the peer tutoring and peer feedback projects underscore a commitment to student success and holistic development since these philosophies highlight the importance of mentorship, personalized feedback and support, and the cultivation of a culture of respect and collaboration in educational settings.

In conclusion, peer tutoring and peer feedback represent dynamic educational strategies that empower students to become active participants in their own learning journeys. By fostering supportive and engaging academic environments, these stra-tegies, along with the didactic innovations currently introduced by the authors, should significantly enhance student learning outcomes, foster critical thinking skills, and prepare students for success in their future careers. As educational landscapes continue to evolve, integrating these innovative approaches into teaching practices will play a crucial role in shaping the future of higher education.

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