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Challenges of Peer Tutoring in Different Role Organization Settings in Higher Education: Systematic Literature Review

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Annotation. This systematic review aims to compare peer tutoring implementation with its role setting by identifying the challenges reported in previous studies. A total of 28 articles were systematically selected and reviewed. The challenges associated with the implementation of four peer tutoring settings, namely same-level and equal-status, same-level and unequal-status, cross-level and unequal-status, and cross-level and unequal-status settings in which the participants from different institutions, were examined.

Keywords: *challenges, higher education, peer tutoring, role organization, systematic literature review.*

Introduction

Peers, as defined by Falchikov (2001), are individuals with the same social status who can engage in tutoring to help each other achieve academic excellence. Typically, peer tutoring has been found to offer numerous benefits to students in higher education, as it fosters positive outcomes among students who learn alongside peers and lecturers (Lockspeiser et al., 2008; Tweddell et al., 2016). According to Irvine et al. (2019), peer tutoring significantly improved the motivation of students to learn. This statement was supported by Gray et al. (2019), who found that peer instructors tend to boost the

confidence of learners and provide essential evaluations of the practiced competencies. Observations by Polkowski et al. (2020) further suggested that peer tutoring improved the understanding of topics covered in classes.

Despite the numerous benefits associated with this approach to learning, its implementation has been observed by various previous studies to present certain distinctive challenges. For instance, a study emphasized that participation in peer tutoring is typically voluntary and dependent on the student's interest (Allen et al., 2021; Chopra et al., 2020; Steck-Bayat et al., 2019). Arco-Tirado et al. (2020) further stated that the approach to learning is primarily suitable for students seeking additional academic support. As a result, students who might benefit most from the learning approach are those requiring significant assistance (Spivey et al., 2021) or those with low academic standing (Hardt et al., 2022).

Various systematic literature review (SLR) have been carried out with a principal focus on examining the benefits and impact of peer tutoring. For instance, Abdurrahman et al. (2020) conducted a systematic review investigating the effectiveness of peer tutoring strategies on learning linear algebra among polytechnic students. Similarly, Aburahma and Mohamed (2017) analyzed the advantages and disadvantages of the learning approach within pharmacy schools. Bowman-Perrott et al. (2016) also explored the influence of peer tutoring on academic, social, and linguistic outcomes for English language learners. It is also important to state, some other reviews focused on role management within peer tutoring contexts. In this context, Gazula et al. (2017) examined the function of peer tutoring in health professions education, with a specific objective of addressing challenges associated with implementing the learning approach in higher education.

In higher education, peer tutoring can be organized into four distinct schemes (Falchikov, 2001), namely same-level peer tutoring, where participants have equal status, same-level peer tutoring with unequal status within the same institution, cross-level peer tutoring within one institution, including participation of tutors and tutees of differing status, and cross-level peer tutoring between different institutions. Therefore, the present systematic review aims to compare the implementation of these peer tutoring schemes and examine challenges reported in various previous studies. The research questions in this study are: What peer tutoring challenges within one institution with (1) participants as tutor and tutee alternately, (2) same-level and unequal-status, and (3) cross-level and unequal-status? (4) what challenges involve two different institutions in peer tutoring with cross-level and unequal-status role settings? For valuable information on developing peer tutoring instruction, this review focused on peer tutoring instruction within higher education.

Literature Review

What is Peer Tutoring?

Ryan et al. (2019) concluded that peers are important in multiple ways for youth engagement and that through numerous mechanisms, peers influence engagement. Peer tutoring is used in higher education in a variety of different forms, and much is known the effectiveness of peer tutoring in higher education (Topping, 1996).

Peer tutoring comprises a variation of useful techniques organized into taxonomies (Falchikov, 2001). However, they all involve the role of peers and student involvement in learning. According to Falchikov (2001), students' interaction in pairs in peer tutoring can take the form of scripted cooperative dyads, pairs summarizing/pairs checking, dyadic essay confrontations, guided reciprocal peer questioning, three-step interviews, and pair-problem-solving methods. Groups of students in peer tutoring can use the jigsaw method, roundtables, peer criticism, supplemental instruction, peer teaching, peer mentoring, or peer coaching to promote learning.

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Method

Design

This study was carried out using SLR approach, adhering to the PRISMA guidelines established by Moher et al. (2010). The PRISMA framework consists of four stages namely identification, screening, eligibility, and inclusion. As stated in a previous investigation, conducting a literature review is a fundamental step in structuring the study field (Easterby-Smith et al., 2002), and is considered an essential component of the process of investigation. Accordingly, Carnwell and Daly (2001) stated that the purpose of a literature review is to critically assess and synthesize the current state of knowledge on the topic under investigation.

Criteria of Inclusion and Exclusion

The following inclusion criteria were considered for the analysis: (1) Learning activities must be conducted in classrooms, laboratories, or workshops within higher

education settings. (2) Publications must be in English and dated between January 2019 and December 2023, adhering to Davis's (2013) assertion that acceptable manuscripts should be no more than five years old. (3) Peer tutoring settings must conform to the four role organization settings outlined by Falchikov. Accordingly, the articles found to meet these criteria were excluded and categorized into non-peer-reviewed publications, non-empirical studies, and studies outside Falchikov's four peer tutoring organizations' scope.

Identification

To identify relevant studies, the keyword "peer tutoring" was used to query a search on the Scopus database, and journal articles published in English between January 2019 and December 2023 were scanned and selected. This initial search returned a total of 365 articles.

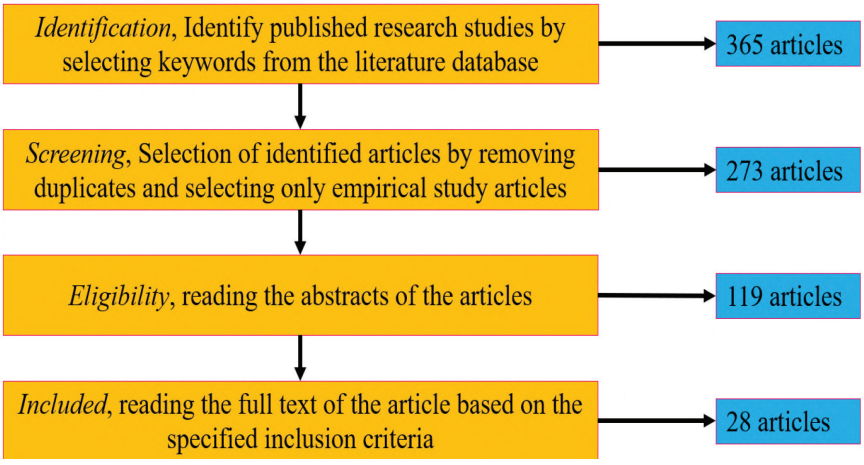
Screening and Eligibility

The selection process included the removal of duplicate articles and the acceptance of solely empirical studies, leading to the selection of 273 articles. Furthermore, to determine the eligibility of the literature selected, the articles' abstracts were reviewed, resulting in a further reduction to 119 suitable articles.

Included

The assessment was conducted by reading the full text of each article based on the specified inclusion criteria. Through this four-stage selection process, a total of 28 articles were identified for inclusion in SLR (Figure 1).

Figure 1
Stages of Selection of Journal Articles on SLR



Selected Articles

SLR process resulted in the selection of 28 relevant articles. The distribution of these articles by year is presented in Table 1, with the highest number published in 2023. Accordingly, the selected articles were categorized by subject and peer tutoring settings, as presented in Tables 2 and 3 respectively. From the information presented, it can be seen that peer tutoring application within higher education was significantly intensive in the health sector, comprising 54% of the selected articles, a proportion that remained consistent throughout the eligibility stages of the SLR. Furthermore, it is important to establish that although peer tutoring is less commonly applied in STEM majors, it is not the least represented area. Concerning the observed learning settings, peer tutoring in cross-level and unequal-status participants within a single institution was observed to be the most prevalent, while cross-level and unequal-status tutoring comprising two institutions was found to be the least common. This trend, as shown in Table 3, reflected the distribution observed during the eligibility stages of SLR, showing a preference among investigators and designers for intra-institutional peer tutoring. The selected articles used a range of study methods, including quantitative, qualitative, and mixed-method approaches, all of which were empirical. In addition, the interventions studied include various settings within higher education, such as classrooms, laboratories, and workshops, with participant numbers ranging from fewer than 10 to over 100 (See Appendix Table 1).

Table 1

Distribution of Selected Articles by Year

Year	2019	2020	2021	2022	2023
Number	5	4	6	6	7
Percent	18%	14%	21.5%	21.5%	25%

Table 2

Distribution of Selected Articles by Subject in Higher Education

Field	Health	Linguistic	STEM	Education	Multi-Field
Number	15	7	4	1	1
Percent	54%	25%	14%	3.5%	3.5%

Table 3
Distribution of Selected Articles by Peer Tutoring Setting

No	Peer Tutoring Settings	Articles	Percent
1.	Same-level and equal-status participants	3	10.5 %
2.	Same-level and unequal-status participants within one institution	7	25 %
3.	Cross-level and unequal-status participants within one institution	17	60.5 %
4.	Cross-level and unequal-status participants comprising two institutions	1	4 %
	Total	28	

Result

Challenges in Peer Tutoring for Same-Level and Equal-Status Participants

Various challenges were found to be associated with peer tutoring for same-level-equal-status peer tutoring within the context of this study. These challenges include the fact that, firstly, few investigators, lecturers, or instructional designers were observed to have organized peer tutoring for students of the same level and equal status. Secondly, the concept of reciprocal peer tutoring has not been sufficiently addressed in the reviewed works of literature (AlShareef, 2020; Gazula et al., 2017; Rees et al., 2016). A technique where participants of the same level and equal status alternate roles as tutor and tutee known as reciprocal peer tutoring (Falchikov, 2001), presents specific challenges, the majority of these issues were discussed in the current review.

In a same-level and equal-status peer tutoring setting, each student has the opportunity to function as a peer tutor and as a tutee, at different times. However, some students usually request more preparation time and additional resources during assignments (Choi & Zhi, 2021). Simultaneously, Alshareef et al. (2019) asserted that while most students feel supported and prepared to take on allocated roles, it is often difficult for the students to manage self-learning when acting as tutors. This understanding emphasizes the importance of providing enhanced support for tutors (Alshareef et al., 2019).

Another challenge was found to typically arise within the learning setting when it comprises paired students. This is primarily because if pairs are required to meet certain criteria, an initial assessment must be conducted before the session (Gisbert & Rivas, 2021). The assessment ensures that pairs are formed based on similar skill levels, thereby guaranteeing equal competence between the two members (Gisbert & Rivas, 2021).

Challenges in Peer Tutoring for Same-Level and Unequal-Status Participants Within One Institution

In same-level peer tutoring, the tutor and tutee can be either fixed or interchangeable roles. In some cases, peer tutoring at the same level includes unequal status as introduced by the coordinator (Falchikov, 2001). When roles are fixed, students automatically have unequal statuses despite being at the same level, with some consistently acting as tutors and others as tutees. The first challenge in this setting is the selection of tutors, which was typically based on specific criteria often set by lecturers (Biju, 2019). This selection process requires thoroughness, as roles in peer tutoring need careful assignment (Singh, 2022). Within this setting, high-ability students often act as tutors for those with lower abilities (Chantaraphat & Jaturapitakkul, 2023). Volunteers from the same cohort, identified as good communicators, are also selected as peer tutors (George et al., 2021).

The process of determining the student's role as a tutor or tutee in peer tutoring often comprises an initial assessment. This pre-test helps identify who will act as the tutor and who will be the tutee, with students paired according to peer tutoring strategy's criteria outlined by Chen et al. (2023) and Kuo et al. (2022). Furthermore, retest scores showing proficiency levels are typically used to group participants into tutor and tutee roles (Chantaraphat & Jaturapitakkul, 2023). Each peer tutor's competency is individually assessed using a validated checklist (George et al., 2021), and students who struggle with certain subjects are identified based on in-class test results (Biju, 2019).

After selecting peer tutors, the next step includes the training phase. Students selected as peer tutors are trained to assist and effectively fulfill allocated tutoring roles (Biju, 2019). These individuals receive training on specific contents to enhance inherent capabilities in order to foster effective communication and delivery amongst peers (George et al., 2021; Kuo et al., 2022).

According to Falchikov's fifth rule in the seven golden rules for peer tutoring, providing support to tutors is essential (Falchikov, 2001). This rule was further supported by Biju (2019), who advocated that tutors be supplied with the necessary materials and resources to effectively carry out tutoring activities.

The final challenge observed in same-level-unequal-status peer tutoring is ensuring student engagement. Equal participation among learners must be promoted, and strategies to increase engagement and inclusivity should be explored, with a particular focus on the role of peer tutors (Abdelaal et al., 2023).

Challenges in Peer Tutoring for Cross-Level and Unequal-Status Participants within One Institution

In the context of cross-level-unequal-status peer tutoring settings within an institution, challenges observed include the fact that students may vary in age, experience, or

skill level, providing support and assistance to less proficient peers (Falchikov, 2001). It is important to state that participation in peer tutoring within higher education settings is often voluntary. A significant challenge in this context is to ensure consistent participation. As stated by Arco-Tirado et al. (2020), Doty & Thompson (2024), and Sowell et al. (2023), regular engagement in peer tutoring is associated with higher academic performance, while low-achieving students frequently miss these sessions (Khalil & Wright, 2022). Stakeholders have emphasized that many students who could benefit from peer tutoring programs do not make use of the opportunities adequately (Mackenzie, 2020).

Another challenge associated with this setting is the selection of students to serve as peer tutors. In order to effectively carry out this process, several criteria are usually considered, including academic achievements such as obtaining an 'A' grade or maintaining a minimum GPA (Alexander et al., 2022; Murtisari et al., 2020; Seo & Kim, 2019), and showing a certain level of proficiency (Arco-Tirado et al., 2020; Sanchez-Aguilar, 2021). In addition, prospective peer tutors must possess relevant soft skills (Murtisari et al., 2020; Sanchez-Aguilar, 2021), show personal interest and commitment (Alexander et al., 2022; Sanchez-Aguilar, 2021; Demak et al., 2021), and agree to undertake role (Sanchez-Aguilar, 2021). Arco-Tirado et al. (2020), also stated that students who have completed tutor training are usually preferred.

A related issue associated with the selection process is training students to become effective peer tutors. In this regard, effective training is crucial for successful implementation (Sanchez-Aguilar, 2021), as it equips peer tutors with necessary ideas and strategies for peer tutoring (Kwan, 2023), instills a strong sense of responsibility, and enhances inherent social and communication skills (Murtisari et al., 2020). According to observations, trained peer tutors can foster an engaging and interactive learning environment (Collier et al., 2022; Wankiiri-Hale et al., 2020) and utilize a dialogic tutoring approach, as tutor-dominated interaction is common (Wingate, 2019). These individuals must also possess content knowledge and teaching skills, such as effective delivery methods (An & Koo, 2022; Harahap et al., 2021), as well as an understanding of the program and the respective responsibilities allocated (Arco-Tirado et al., 2020). Considering these criteria, Arco-Tirado et al. (2020) proposed a structured training that includes an introduction to the program, the use of workbooks, the assignment of the first tutoring session, and the performance of student needs assessments. The training also covers teaching focus, learning strategies (Wingate, 2019), and the provision of individual feedback to support learners at developmental levels (Alexander et al., 2022).

Another challenge related to this learning approach is the provision of support for peer tutors. The availability of supporting teaching materials is critical, as limited resources can hinder the effectiveness of peer tutoring (Murtisari et al., 2020). This assertion was supported by another precious study where it was stated that structured and

sequenced peer tutoring sessions, facilitated by workbooks, can help tutors implement and follow up on tasks (Arco-Tirado et al., 2020). Subsequently, it is very important to recognize the efforts given by tutors. As stated by Alexander et al. (2022), one way to effectively carry out such recognition is by reimbursing the individuals hourly for the services rendered.

Institutional inclusiveness for institutional success is essential in peer tutoring. Therefore, institutions should support peer tutoring programs by appointing or forming a dedicated board to manage these initiatives. Although a specific board may not always be mentioned, stakeholders are typically responsible for overseeing peer tutoring schemes (Mackenzie, 2020). For instance, some programs are managed by the Center for Teaching and Learning (Seo & Kim, 2019), while the Office of Center Excellence handles tutor training, provides materials and learning resources, contacts low-performing learners, matches the low-performing learners with tutors, and monitors the entire program (Alexander et al., 2022).

According to Demak et al. (2021), regular monitoring and evaluation should be essentially carried out once peer tutoring program is operational. In addition, it becomes crucial that peer tutors attend regular meetings with the committee and other tutors to enhance tutoring skills, address common issues, and connect with faculty (Alexander et al., 2022). This assertion was further supported by Zapata (2020), who admonished that weekly meetings be conducted between peer tutors and course lecturers in order to facilitate the exchange of teaching strategies and educational materials, as well as allow for discussions about student learning difficulties and low achievement cases (Zapata, 2020). Typically, maintaining a high-quality peer tutoring setting requires strict recruitment of peer tutors, comprehensive tutor training, and ensuring the commitment of the selected tutors (Demak et al., 2021).

Challenges in Peer Tutoring for Cross-evel and Unequal-Status Participants Comprising Different Institutions

During this review, only one piece of literature was found to address the exploration of peer tutoring arrangements across levels and unequal status comprising different institutions. Challenge associated with this arrangement is related to participation. Since attendance is voluntary, some students may not feel sufficiently motivated to remain inclusive in peer tutoring program (Ozkara et al., 2023). However, it is worth stating that consistent student participation is correlated with higher grades (Ozkara et al., 2023).

Discussion and Conclusion

The present systematic review aims to compare the implementation of peer tutoring with organization of peer tutoring roles through the identification of challenges reported in previous studies. To achieve the objective, different challenges associated with peer tutoring were examined across various organizational roles, and the results showed several common issues. First, student participation was observed to constitute a primary challenge, which is frequently encountered during peer tutoring implementation, specifically in voluntary programs. The observations made from this study show that participation in peer tutoring, as a curricular support activity, is voluntary and dependent on student interest (Allen et al., 2021; Chopra et al., 2020; Steck-Bayat et al., 2019). Consequently, the program may only be suitable for students seeking additional academic support (Arco-Tirado et al., 2020). This implies that students in greater need of support (Spivey et al., 2021) or those with lower academic standings (Hardt et al., 2022; Khalil & Wright, 2022) may not fully make use of the opportunities provided by peer tutoring. One potential solution to this particular challenge is to integrate peer tutoring program into the formal curriculum, making tutoring hours a core component of classes (Zapata, 2020).

Formalizing peer tutoring program as part of the curriculum is generally considered a potential solution, as supported by evidence of its effectiveness (Fisher & Stanyer, 2018). Second, selecting peer tutors is crucial, as tutors play a significant role in peer tutoring. While specific criteria for a becoming peer tutor have been identified in various settings, most of the requirements are less evident in peer tutoring arrangements between institutions. This gap in the literature may be attributed to limited empirical studies examining peer tutoring across institutions. It is important to establish that tutors are typically selected by lecturers (Biju, 2019), faculty members (Alexander et al., 2022), or special peer tutoring committees (Alexander et al., 2022; Seo & Kim, 2019) based on predetermined criteria, with initial assessments often used to determine suitability. Third, training peer tutors is essential, and this is in accordance with the third rule in the seven golden rules for peer tutoring (Falchikov, 2001). While training of tutors has been reported primarily in same-level-unequal-status and cross-level-unequal-status role settings within one institution, its necessity in other role settings may be concluded despite limited literature. Training covers course content, program administration, soft skills, learning strategies, assessments, and feedback techniques. Fourth, supporting peer tutors is crucial, as emphasized in the seven golden rules, the fifth rule for peer tutoring (Falchikov, 2001). Although support for peer tutors was predominantly found in same-level-unequal-status and cross-level-unequal-status role settings within one institution, its importance in other settings may be ignored due to limited literature. In this regard, support may include providing teaching materials, and workbooks, and compensating tutors for services rendered.

The application of peer tutoring to learning necessitates various preparations, including theoretical and content knowledge (Homberg et al., 2019; Kang et al., 2021), gathering learning materials (Henriksen et al., 2020), and acquiring pedagogical techniques (Lowton-Smith et al., 2019; MacDonald et al., 2020). In same-level-unequal-status peer tutoring, challenges to achieving equal engagement are evident, hence, clarity of roles and attention to emotions, particularly at a lower level, are essential (Cheng et al., 2022). Moreover, the gender composition of the pair or group should be considered, as women often experience more anxiety, feel less confident, and may be perceived as less self-assured, and this may potentially affect performance as tutors (Dumitru et al., 2022). In cross-level-unequal-status settings, two main challenges were observed namely institutional inclusiveness as well as program monitoring and evaluation. As stated, institutions can generally support peer tutoring programs by appointing or forming a special board for effective management. This board would oversee the selection of tutors, organize tutor and tutee meetings, provide support to tutors, conduct tutor training, and monitor peer tutoring programs (Alexander et al., 2022; Seo & Kim, 2019). Furthermore, periodic monitoring and evaluation are crucial for identifying problems and utilizing results to enhance the program (Demak et al., 2021). However, it should be noted that the challenges in certain role settings in peer tutoring do not mean that they can only occur in those role settings. Therefore, it is recommended to carefully consider all challenges to improve learning outcomes of peer tutoring within higher education.

In conclusion, this study investigates challenges in the four role-setting of peer tutoring. The student needs preparation time and assessment at the beginning program are challenges when the student as a tutor and tutee alternately within an institution. Whereas, when the students have same-level and unequal status, tutor selection, conducting initial assessments, supporting the tutor with training, and ensuring equal student engagement are the observed challenges in this role setting. Cross-level and unequal-status situations were also found to pose several challenges, specifically related to student participation, tutor selection, initial assessment, tutor training, institutional inclusiveness, as well as program monitoring and evaluation. Lastly, the cross-level and unequal-status peer tutoring settings in which the participants from different institutions' showed student participation as the sole associated challenge. Despite these results, it is important to establish that the issues encountered in a particular peer tutoring setting do not necessarily imply exclusivity to the setting alone. As a result, all identified challenges should be considered for the optimal implementation of peer tutoring programs. This study represents the first systematic review to identify challenges in implementing peer tutoring based on Falchikov's role organization of peer tutoring.

This study solely relies on one literature database for the identification process in the initial stage of SLR. Therefore, using two or more literature databases potentially

enhances the identification of empirical articles and will significantly enrich the subsequent stages of the systematic review. Future studies can provide comprehensive knowledge of peer tutoring and its impact on learning outcomes within higher education by considering many literature databases. Further studies are recommended to strengthen the comprehension of the peer tutoring challenges to develop better instruction of peer tutoring and evaluate its effectiveness.

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Appendix

Table 1
Selected articles based on inclusion criteria

No	Author	Course/Topic	Methodology	Intervention	Participant
1.	(Ozkara et al., 2023)	Central nervous system tumors	Mixed methods, quantitative by survey and qualitative, Open-ended questions	5 times the 2 hours lectures in 9 weeks, with 2 weeks interval	2 fifth-year medical students as tutors and a total of 65 medical students as tutee
2.	(Sowell et al., 2023)	Microbiology and Immunology	Experimental Design, pre and post	18 weeks, 1 hour weekly	Program year 1 and Program year 2
3.	(Doty & Thompson, 2024)	Anatomy Laboratory	Comparative quantitative design	none	Second-year students led group tutoring sessions for first-year students.
4.	(Abdelaal et al., 2023)	Dentistry	Mixed methods, quantitative by closed-end questions and qualitative, Open-ended questions	Low-performing students and peer guides who represent the high-performing students in the same year groups	A total of 64 students 32 peer learners and 32 peer guides
5.	(Kwan, 2023)	English Writing	Qualitative by semi-structured interview	none	Four consultants from the student
6.	(Chen et al., 2023)	English as a Foreign Language	Experimental design	90 minutes learning session in a virtual reality environment	42 first-grade, treat group (n = 19) and control group (n = 23)
7.	(Chantaraphat & Jaturapitakkul, 2023)	English speaking	Qualitative, semi-structured interviews and speaking tests	Period of 12 weeks in small group, 1 tutor for 3-4 tutee	13 fourth-year undergraduate Students, 3 as tutor and 10 as tutee
8.	(Wankii-ri-Hale et al., 2020)	predoctoral curriculum	Mixed method design using both quantitative and qualitative	Tutors provide tutoring services for the remainder of the term for a period of 12–15 weeks.	Surveys from tutors (N =133) and tutees (N = 115)
9.	(Biju, 2019)	Problem-solving and algorithms	Survey method in the form of evaluation of students' test scores	Working in pairs was facilitated in the class during the problem-solving sessions. There a pair consists of a tutee each a tutor.	50 students, working in pairs as a tutor and a tutee
10.	(Mackenzie, 2020)	English as a foreign language	Qualitative in-depth interviews	Low-performing students, or students who are repeating, from 8 a.m. to 6 p.m. in various learning spaces throughout the university	Eight peer tutoring scheme stakeholders

No	Author	Course/Topic	Methodology	Intervention	Participant
11.	(Arco-Tirado et al., 2020)	Pharmacy, Economics, Psychology, and Business Administration and Management	Experimental design	20 highly structured individual weekly tutoring sessions	102 first-year students, an experimental group with 51 freshmen, and a control group with 51 freshmen
12.	(Murtisari et al., 2020)	English as a Foreign Language	Qualitative descriptive study	none	Ten tutors
13.	(Zapata, 2020)	Multi-field in education	Action Research for Academic Support Program* (ASP) implemented,	Include four hours of teaching per week to a maximum of 10 students throughout 11 weeks.	21 participants were distributed as 9 tutors and 12 tutees.
14.	(Alshareef et al., 2019)	Multi-topic in Medicine	A descriptive cross-sectional survey examined perceptions	Peer-led 1–2 hrs, seminars. Students rotate through 5–10 placements per year in groups of approximately 50 divided into two sub-groups	Sixty-three percent (258/410) of students responded
15.	(Seo & Kim, 2019)	Wide range of academic majors.	Quasi-experimental design	Conduct more than eight successive face-to-face peer tutoring sessions.	373 undergraduate students, 104 tutors and 269 tutees
16.	(Alexander et al., 2022)	preclinical phase of the curriculum	Qualitative action study	Each tutor works with 1–5 learners.	56 learners and 20 tutors completed the survey
17.	(Wingate, 2019)	Writing in social sciences and humanities	Quantitative and Qualitative	Ten tutorials, average length of 47 min	5 tutors and 8 students
18.	(Choi & Zhi, 2021)	Computer-aided design (CAD) with Autodesk Auto-CAD program	Quantitative and Qualitative	In peer-to-peer learning, each student will have a chance to function as peer tutor, or tutee at differing times	52 responses
19.	(Singh, 2022)	Applied Physics for engineering student	Quantitative and Qualitative	Each team must present the material following the rubrics that have already been given	Sixty students, divided into fifteen diverse teams (four each)
20.	(Sanchez-Aguilar, 2021)	English language	Mixed methods study design include the analysis of qualitative and quantitative data	Five-hour English classes daily for about four months during the first semester	7 tutees and 5 tutors, 2 trios (1 tutor, 2 tutees), and 3 dyads.

No	Author	Course/Topic	Methodology	Intervention	Participant
21.	(Khalil & Wright, 2022)	Medical sciences	Quantitative statistically	Twenty-one weekly NPT sessions were delivered by fourth-year students to first-year and second-year students.	-
22.	(Gisbert & Rivas, 2021)	Empathy among nursing	A quasi-experimental design with a comparison group); and a qualitative study	Highest empathy student score paired with the second highest score, and so on consecutively, consists of 61hour sessions in two sessions per week	The 40-student class became the intervention group and the 36-student the class was set as a comparison group.
23.	(Demak et al., 2021)	Pharmacology	Quasi-experimental study	After the lecture, practical material is given by lecturers. A tutor will facilitate each group of peer tutoring students as tutees in the campus environment at the specified time.	Four treatment and control groups from a total of 86 2nd-year students, the experimental group was made up of four third-year students who became tutors
24.	(Kuo et al., 2022)	Programming Languages	Experimental Design	Peer tutoring for programming languages then proceeded for five weeks.	52 undergraduate, 24 students, in 12 groups, were placed in the non-peer mentoring group, and the remaining 28 students, in 14 groups
25.	(An & Koo, 2022)	Neonatal nursing simulations	The qualitative study used focus group interviews	Six stages. 50 minutes orientation for each module; 1-hour verbal test to check pre-learning; 20 minutes pre-briefing; 2 hours tutor in charge; 20 minutes professor in charge; and 50 minutes debriefing	27 third-year students who participated as tutees and 6 fourth-year students who participated as tutors
26.	(Harahap et al., 2021)	Antenatal care	Pre-experimental design with a one-group pre-test post-test design	Two days provide tutorials on ANC laboratory skills in rotation for each competency using a checklist	Five Levels two students as tutors and 45 Levels one students as tutee
27.	(George et al., 2021)	Procedure skill, insertion of an indwelling bladder catheter.	Quasi-experimental study	After the initial teaching session by peer teachers, students in Group B were asked to attend practice sessions as a group along with peer teachers.	Fifty-seven students, 30 in Group A (faculty-led) and 27 in Group B (peer-led).
28.	(Collier et al., 2022)	Pharmacy	Survey	Approximately 4.5 hours per week attending SI sessions in addition to the time spent in the classroom and engaging in other independent study activities.	Survey respondents by cohort (n=98); Student (n=71); peer leader (n=6); and Faculty and staff (n=21)

Tarpusavio mokymosi, grįsto skirtingais vaidmenimis, iššūkiai aukštojo mokslo organizacijos aplinkose: sisteminė literatūros apžvalga

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Santrauka

Aukštojo mokslo studentams labai naudinga studentų konsultantų pagalba. Vis dėlto svarbu įvertinti ir iššūkius, susijusius su šios veiklos įgyvendinimu. Straipsnyje pateikiama sisteminė literatūros apžvalga, kuria siekiama nustatyti, kokią įtaką studentų tarpusavio konsultavimo įgyvendinimui turi vaidmenų aplinka, apžvelgiami ankstesniuose tyrimuose nustatyti iššūkiai. Norint pasiekti iškeltą tikslą, buvo atrinkti ir peržiūrėti 28 straipsniai. Šiame tyrime nagrinėjami keturi pagrindiniai iššūkiai, susiję su studentų tarpusavio konsultavimo skirtingų vaidmenų įgyvendinimu, būtent: to paties lygio ir vienodos padėties; to paties lygio ir nevienodos padėties; skirtingų lygių ir nevienodos padėties; skirtingų institucijų skirtingų lygių ir nevienodos padėties. Studentų poreikiai pasirengimo laikotarpiu ir programos vertinimo pradžioje yra įvertinti kaip studentų tarpusavio konsultavimo iššūkiai, institucijoje nustatant to paties lygio ir vienodos padėties vaidmenis, o konsultantų atranka, atliekami pirminiai vertinimai, konsultantų palaikymas mokymais užtikrinant vienodą studentų įsitraukimą yra susiję su to paties lygio ir nevienodos padėties vaidmenų iššūkiais institucijoje.

Buvo nustatyti skirtingų lygių ir nevienodos padėties studentų tarpusavio konsultavimo papildomi iššūkiai, įskaitant institucijų įtrauktį, stebėseną ir vertinimą. Galiausiai skirtingų institucijų studentų tarpusavio konsultavimas parodė, kad vienintelis susijęs iššūkis yra studentų dalyvavimas. Taigi, labai svarbu, kad tolesniuose tyrimuose būtų sprendžiami šie iššūkiai kuriant studentų tarpusavio konsultavimo metodikas ir analizuojant jų veiksmingumą, siekiant gerinti mokymosi rezultatus.

Esminiai žodžiai: *iššūkiai, aukštasis mokslas, studentų bendraamžių konsultavimas, organizacijos vaidmuo, sisteminė literatūros apžvalga.*

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