

RESEARCH REPORTS

POSTGRADUATE STUDENT'S PERCEPTION OF USING PEER REVIEW AS A PEDAGOGICAL TOOL

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ABSTRACT *Peer review is a widely used pedagogical tool in higher education. It involves students providing feedback for their peers' work, thus contributing to the assessment process alongside or instead of instructors to improve the overall quality of the final output. The purpose of this study is to explore postgraduate student nurses' experiences of using peer review as a pedagogical tool. The paper aims to: (1) examine the perception of postgraduate students in using peer review, and (2) determine the benefits & challenges of using peer review. A phenomenological approach with a descriptive study design was employed. Data were collected through in-depth interviews and analysed using thematic analysis to capture the participants' lived experiences. The analysis revealed peer review was unanimously perceived as a beneficial pedagogical tool that enhanced the learning. Three major themes emerged: (1) implementation preferences, (2) increased engagement enhancing learning, and (3) concerns in navigating feedback. The study findings concluded that peer review is a collaborative learning strategy that empowers, motivates, and fosters active learning. Students perceived peer review to have a positive impact on their learning and as a tool that assists in improving their final output. Further research is needed to explore specific strategies and their impact on peer review and student outcomes.*

Keywords: Peer Review, Peer Feedback, Pedagogy, Higher Education, Active Learning

Introduction

Peer review (PR), also known as peer assessment, peer evaluation, or peer response, is a widely used pedagogical tool within the higher education system. It involves students providing feedback to their peer's work, thus contributing to the assessment process along with or instead of instructors (Fontaine et al., 2019; Serrano-Aguilera et al., 2021). The integration of PR reflects a shift towards interactive learning environments that boost communication skills, critical thinking, and the overall outcome of the students (De Brún et al., 2022; Deeley et al., 2019; Holmes, 2005; Serrano-Aguilera et al., 2021). This research aims to explore postgraduate students' perception of using peer review as a pedagogical tool.

Significance of Peer Review

Peer review (PR) is a collaborative learning method that encompasses students evaluating and providing feedback on each other's work (Serrano-Aguilera et al., 2021), to enhance the learning of both the reviewer and the reviewee, ultimately improving the quality of the final product. Additionally, it is a student-centric approach that enhances assessment literacy essential for effective learning. PR assists to clarify assessment expectations, develops critical thinking and encourage

student engagement (O'Neill et al., 2020), which are crucial for the optimal performance of the learner (Deeley et al., 2019). Hence PR is linked to assessment in the context of education, as assessment support students in learning and improving their academic outcomes (Deeley et al., 2019; Serrano-Aguilera et al., 2021).

Assessment and feedback are processes that are interrelated and crucial for learning. Effective feedback is necessary for learning to occur; yet the growing evidence indicates that the current feedback practices are unsatisfactory (Carless et al., 2008; Deeley et al., 2019), leading to dissatisfaction among students in relation to the feedback practices (Iglesias Pérez et al., 2022). Globally, higher education institutions have gradually transitioned to larger class sizes, often accompanied by fewer tutorials and seminars (Serrano-Aguilera et al., 2021), reflecting a decrease in the staff-to-student ratio and reduced instructor-student interaction. Consequently, assessing larger classes presents challenges in providing sufficient feedback due to the limited contact time available between staff and students.

A similar trend is observed in the higher education system of the Maldives, where many students express grievances related to feedback, citing difficulties in understanding the feedback provided, among other issues. Large class sizes and high workloads present significant barriers to delivering constructive and timely feedback to students (S. Mohamed, personal communication, 15 March 2024). Furthermore, anecdotally, lack of written, individualized, and timely feedback with adequate time for revisions has been identified as a factor negatively influencing students' academic achievements. Thus, it is evident that both students and lecturers face challenges in providing and receiving adequate, constructive feedback. It is crucial to adopt evidence-based practices to address this gap, facilitating the feedback process and enhancing students' academic outcomes. Therefore, this study aims to explore postgraduate students' perceptions of using peer review as a pedagogical tool, focusing on the benefits and challenges they encounter.

Literature Review

Peer review is a strategy created by educationists based on psychological and sociological theories, including cognitive constructivism, social constructivism, and cognitive distribution, among others (Keerthirathne, 2020).

Constructivism asserts that students learn by doing rather than by passive observation. It is an active and constructive process where learners use prior knowledge in combination with present learning situations to critically understand and achieve learning outcomes. Constructivist theories suggest that learners should be actively involved in the learning process. Vygotsky (1978) represents social constructivism, where learners use social interaction in the construction of knowledge. Social constructivism acknowledges that every function of the learner's cultural development first appears on the social level and subsequently on an individual level. Vygotsky further explains that every higher function emerges as a real relationship between the learner and those around him (Keerthirathne, 2020, p. 2).

Similarly, peer review necessitates the students actively engage in their learning process, which is crucial for its effectiveness. In the context of social constructivism, peer review is a cognitive relationship that occurs between individuals, facilitating learning among classmates or peers of similar age groups.

Peer Review (PR) in Educational Settings: Benefits and Challenges

Peer review (PR) in educational settings presents both benefits and challenges. PR serves as a motivating force for students (Prompan & Piamsai, 2024; Serrano-Aguilera et al., 2021), empowering them throughout the assessment process and encouraging them to take ownership and accountability for their learning and evaluation (Prompan & Piamsai, 2024). Additionally, PR fosters the development of negotiation, collaboration, and interaction skills essential for real-world scenarios (Ashenafi, 2017; Iglesias Pérez et al., 2022; Şahin, 2008). Moreover, PR has consistently been shown to boost academic performance across various educational settings (Rico-Juan et al., 2022). From an instructor's perspective, peer assessment methodologies improve grading efficiency, enable formative evaluation, and ensure that students receive timely feedback without overburdening teachers (Cachero et al., 2022; Rico-Juan et al., 2022). Thus, PR appears to be a valuable tool that fosters learning and enhances the academic successes of students.

Yet, the available evidence indicates challenges in implementing PR as an assessment strategy. Tendency to over score, especially among friends can produce skewed assessment outcomes (Serrano-Aguilera et al., 2021). The widespread adoption of PR is further limited by factors such as lack of maturity, seriousness, negative attitudes and perceived additional workload (Iglesias Pérez et al., 2022; Väyrynen et al., 2023). Additionally, confusion and ambiguity may arise when students struggle to comprehend feedback by their peers (Kerman, 2022). Social influences such as fear of disapproval, peer pressure, and favouritism can also affect the fairness of evaluations, especially in face-to-face settings (Iglesias Pérez et al., 2022). This accentuates the importance of addressing both the cognitive and emotional aspects involved in PR to establish an effective peer-learning environment. Therefore, addressing these challenges is essential for the successful implementation in educational practice.

Impact of Peer Review on Higher Education

Peer review as a pedagogical strategy has been widely explored. A mixed method study was conducted by Zaccaron et al. (2024) to examine bias in feedback. Findings indicated that though the participants tended to trust teacher feedback more, the acceptance of feedback suggestions were comparable irrespective of the source. Suggesting that the perceived social standing of the teachers' and peers' have a greater influence on feedback utilisation than the feedback content itself. The initial findings of a quantitative descriptive study by De Brún et al. (2022) to explore the expectation and experiences of peer assessment in a midwifery research method module revealed that the students were apprehensive, viewed the task difficult, and doubted their competence in providing feedback. However, after receiving instructions and tools to assist in the activity, the participants demonstrated higher levels of satisfaction with a significant shift in their perception of PR, and increased confidence in their ability to evaluate their peers' work. This emphasized the transformative nature of PR in improving the student competence, and confidence, highlighting the necessity for thoughtful integration of PR in educational settings.

Noroozi et al. (2022) examined how students' perceived motivation and perceived fairness of PR affected their satisfaction with learning in the context of writing argumentative essays in an online learning environment. Results indicated

that students were more satisfied with their learning when they perceived peer feedback as motivating and viewed the feedback as fair and constructive. This suggests that students' perceptions are equally important in utilising PR as a means of formative assessment. Therefore, educators need to ensure a standardised PR process to facilitate fair and constructive feedback.

While previous research underscores the importance of giving and receiving PR for active learning and improved learning outcomes, the local context lacks research specific to PR. To the best of the researcher's knowledge, no research has been conducted on PR in the Maldivian context. Therefore, this study aims to gather evidence specific to PR as a pedagogical tool in this setting.

Objectives

1. Examine postgraduate students' perceptions of using peer review, and
2. Determine the benefits and challenges of using peer review as a pedagogical tool

Methodology

A qualitative research methodology was chosen for this study, as it is concerned with providing a description of a phenomenon, is guided by various disciplines, is loosely structured, and provides comprehensive summaries (Burns & Grove, 2007; Polit & Beck, 2017; Ugwu & Eze, 2023). A descriptive study design was used, as the study aims to acquire knowledge on a phenomenon of interest to the researcher and thoroughly describe the phenomenon (Polit & Beck, 2017).

This use of qualitative methodology was opted for, also due to the limited research in the Maldivian setting that addresses student experience of using peer review as a pedagogical tool. This approach is useful when a phenomenon is not well studied (Polit & Beck, 2017). A purposive sampling strategy was used to recruit participants who had been exposed to the phenomenon of interest (Obilor, 2023). This ensured richness in the data collected, with the sample size determined by the saturation of emerging themes (Polit & Beck, 2017). Six participants were included in this study, as phenomenological studies typically involve small sample sizes (Polit & Beck, 2017; Ugwu & Eze, 2023).

Research Process and Participants

Students enrolled in the third semester of the Master's programme at the School of Nursing (SN), registered in the contract learning module, and willing to participate were included. This cohort was chosen as the focus of the study is on postgraduate students' experiences, while it ensured the participants had been exposed to academic writing and project work. It further enabled the researcher to acquire a homogeneous sample. Due to time limitations, the literature review and final report were chosen as the components for PR. Participants were recruited through word of mouth, facilitated by the researcher's position as a lecturer at SN. PR was conducted before the final submission of the components, with peers chosen by drawing lots. However, due to changes in submission dates, only the literature review was peer-reviewed.

Data Collection and Analysis

Data was generated through face-to-face, in-depth interviews, the main data collection method in phenomenological studies (Busetto et al., 2020; Polit & Beck, 2017). This method allowed the researcher to observe facial expressions and maintain a neutral stance, avoiding preconceived ideas. Open-ended, semi-structured questions guided the interview process, ensuring consistent queries across participants (Busetto et al., 2020). Interviews were recorded to preserve participants' words accurately, and data was derived from narrative material, including verbatim transcriptions and participant observation (Polit & Beck, 2017). The phenomenological method used for data analysis was Collaizi's (1978) method, ideal for use in phenomenological studies (Burns & Grove, 2007; Polit & Beck, 2017). The process was initiated post-interview transcription.

Transcription is one of the initial steps in the process of analysing qualitative research (Holloway & Wheeler, 2013; Polit & Beck, 2017). The researcher transcribed the recorded interviews verbatim, personally immersing herself in the data to become more attuned to the issues of importance and obtain the fullest, richest insights (Polit & Beck, 2017). The recordings were listened to immediately after data collection. Since the interview was conducted in Dhivehi, the researcher translated the transcribed content into English before coding. The seven-step method of Collaizi was then followed.

The researcher familiarised herself with the data by "reading and rereading notes, recalling observations and experiences..." (Burns & Grove, 2007, p. 80) and "acquiring a feeling for them" (Polit & Beck, 2017). During this stage, any thoughts, feelings, and ideas that arose were recorded in a bracketing diary to explore the phenomenon as experienced by the participants themselves (Stahl & King, 2020). Significant statements were extracted from the transcriptions, and meaning was derived from each statement. These formulated meanings were then articulated into clusters of themes through thematic analysis. The clusters were compared against the original data for validation, with discrepancies among clusters being noted. Efforts were made to "avoid the temptation of ignoring data or themes that do not fit" (Polit & Beck, 2017, p. 474). The results were then integrated into an exhaustive description of the phenomenon. Finally, validation of the findings (member checking) was sought from the research participants to compare the researcher's descriptive results with their experiences (Polit & Beck, 2017) and verify if the translations accurately conveyed the participants' intended meanings.

Ethical Consideration

Various steps were taken to address ethical issues, including obtaining approval to recruit students, securing consent, and maintaining confidentiality. Participation was voluntary, and participants were informed of their right to withdraw from the study at any time without facing any consequences. Prior to data collection, they were verbally briefed on the purpose of the study, and informed consent was obtained from those willing to participate. Pseudonyms were assigned to ensure confidentiality.

Establishing Rigour and Trustworthiness

To ensure rigour, the study adhered to research process steps from the phenomenon of interest to recommendations and practice implications (Grodal et al., 2021; Ryan et al., 2007). Procedural rigour was established by selecting appropriate data collection techniques, while ethical rigour was addressed through confidentiality measures. Credibility was achieved through member checking, data triangulation, prolonged engagement, and persistent observation (Houghton et al., 2013; Polit & Beck, 2017). Dependability was ensured through an audit trail, providing evidence of decisions made throughout the study (Houghton et al., 2013; Ryan et al., 2007), while transferability was achieved by providing rich descriptions, enabling replication in similar contexts. However, some degree of study bias is to be expected in any research.

Possible Study Bias

Sampling bias is a possible concern, as purposive sampling is a non-randomised method. However, as phenomenological studies focus on describing a phenomenon, purposive sampling can provide rich data to serve this purpose (Burns & Grove, 2007; Polit & Beck, 2017). If participants selected are unable to provide sufficient information, discrepancies in study results may arise. Nonetheless, the flexibility of qualitative research allows data collection to continue until saturation is reached, minimising sampling bias (Polit & Beck, 2017).

Findings

Three major themes emerged from the study:(1) implementation preferences, (2) increased engagement enhancing learning, and (3) concerns in navigating feedback. The themes and sub-themes drawn from the data are summarised in Table 1.

To answer the question regarding students’ perceptions of using peer review (PR) as a pedagogical tool, the findings indicated that participants unanimously agreed that PR is beneficial and significantly improved their academic outcomes. This was evident from the statement of participant 4: *“It’s a very good method. It really helps... I don’t think I have ever written a literature review to the level I have done this time.”* Similarly, Participant 6 stated: *“It really did help me to understand more about literature review... like literature review was really confusing for me before,”* while Participant 3 affirmed: *“this (PR) is very beneficial to us.”* These statements indicate that PR as a pedagogical tool was well received and deemed beneficial to their learning process. However, participants also expressed preferences regarding its implementation within the curriculum.

Table 1 Themes and sub-themes

Implementation preferences
<ul style="list-style-type: none">• Formative versus summative• Confidentiality and anonymity
Increased engagement enhancing learning
<ul style="list-style-type: none">• Academic improvement• Collaborative learning

Concerns in navigating feedback
<ul style="list-style-type: none"> • Time management • Impact on self and peer relationships

Implementation preferences

The verbatim responses highlighted participants' preferences regarding implementation, which were categorised into two sub-themes: formative versus summative assessment and confidentiality and anonymity.

Formative versus Summative Assessment

All participants unanimously indicated a preference for PR to be implemented as a formative assessment rather than a summative evaluation, albeit with some concerns. Participant 1 stated: *"I think as a formative assessment it would be better... I think if fewer marks are given, students may think we are biased,"* indicating that students might inflate scores if PR contributes to the final grade. However, the participant also discussed the possibility of students not paying attention to PR when it is formative. Suggested: *"It is ok to allocate a small percentage, for instance 5% re-allocated from the online activities. Now we have 10%; from that we can allocate 5%. Then I think students will pay more attention to it. Then it will work... If it is formative, some may not do it... but then again, (if it is summative) because of colleagues' marks, a student may pass (undeservingly)."* This again highlights the concern that tendency of peers may be inclined to give higher scores. Furthermore, Participant 3 stated: *"If we keep it as a summative one, due to some reasons, maybe some may not be able to do it the way it is supposed to be done. So, if it is kept as a formative one, we will still be getting the benefits."* These statements suggest that students are willing to engage in PR actively and suggest the need to establish a feedback process that enhances learning outcomes while maintaining fairness.

Confidentiality and Anonymity

Participants stressed the importance of confidentiality and anonymity in PR implementation. This concern was reflected in Participant 2's statement: *"... and it is better not to know the peer reviewer or reviewee. Then it also should be a subject where students take different topics; if the topics are the same, copying may occur. Even now, similarity is so high."* This concern was also echoed by Participant 5: *"If it is the same topic, it will be difficult to do a peer review because plagiarism issues will arise, isn't it? Most students will not even want to give (pause) that's why. When it is a different topic are, only then will students be ok with sharing."* This suggests that students prefer to keep their work confidential to prevent plagiarism and believe that an anonymised peer review process would encourage genuine feedback while reducing peer pressure.

Furthermore, Participant 2 expressed concern: *"Most of the time we submit to teachers, right? Only the teachers will see our assignment. Even when we (students) don't know how to go about something and discuss, only the teacher will see it (the assignment) ... confidentiality (is important) and an individual student's (academic) level only the teacher will know, colleagues will not know my level. Therefore, it did cross my mind, for example, if I do not do this work well, what will they think? That was a challenge... so I tried to do better even,"* The statement highlights how peers' perceptions can influence students' motivation, serving as an extrinsic factor encouraging academic improvement.

Increased Engagement Enhancing Learning

Participants believed the PR facilitated engagement in the learning process, enhancing their overall learning experience. Two sub-themes emerged: academic improvement and collaborative learning.

Academic Improvement

The data indicated that participants perceived PR as having a positive influence on academic performance, particularly in submitting a better literature review. This was evident from Participant 3's statement: *"(Using) the feedback I received from my friend, the points she (peer reviewer) highlighted, for me, in my assignment, I was actually able to note them down and correct them before submitting my final paper for marking."* She further stated: *"Of course, it (PR) is beneficial because otherwise, I would have lost some marks."* Similarly, Participant 2 stated: *"PR really helped me to understand more about the assignment because to be able to give feedback to someone, we need to be familiar with it."* This suggests active engagement with the assignment guidelines, leading to improved academic outcomes. Participant 1 affirmed: *"I believe, with the peer feedback, I have improved my literature review a lot. I produced a better one."* This indicates that students valued and effectively incorporated peer feedback into their work.

Additionally, the findings suggest the development of critical thinking skills. Participant 2 stated: *"I had to think, kind of critically, like a teacher would. I got an idea of how to go about it... like this part must be done like this. I need to include so and so. I got the chance to think about it more critically and improve the assignment"*. This indicates that PR fosters active learning, critical thinking, and self-reflection.

Collaborative Learning

Collaborative learning enables students to learn from one another and actively engage in the learning process, fostering motivation and knowledge retention. The findings indicate that PR facilitated collaborative learning and enhanced the learning experience for participants. According to Participant 6: *"When students give feedback to each other, umm we get some feedback... sometimes we don't get effective feedback from supervisor, so PR was very helpful because then we get comments (on the assignment) from someone else apart from the supervisor."* In addition, Participant 5 stated: *"After getting feedback (from a peer), it was much easier to correct (less time-consuming), like the referencing mistakes and what I was missing. For example, in the search strategy, even after using Zotero, I forgot to mention... and that thematic analysis was done, I forgot to mention that too. But after getting the feedback, it was easier... so my own work improved, and my colleague's work also (after feedback), I believe, improved."*

Conversely, Participant 5 found giving feedback more beneficial than receiving it, stating: *"Peer reviewing was helpful for me because I reviewed, and it was more helpful than the feedback I received. Through reviewing another student's work, I came to know their views and what they were doing, and I realized what I was missing in my literature review."* Similar sentiments were shared by Participant 2 and 4. Participant 2 stated: *"... When I got to see someone else's work, I got some ideas (on improving my own),"* while Participant 4 affirmed: *"Different students have different standards... The good students, in their assignments, we want to see what they write so that weaker students can understand the level they need to reach. I am not academically strong, (but) I try very hard. Reaching that standard is difficult. It (PR) really helped me."* These statements

indicate that PR fosters collaborative learning, benefiting even academically weaker students. However, participants also expressed concerns about the PR process.

Concerns in Navigating Feedback

Although all the participants found peer review to be useful, they also shared challenges faced during the process. The participants' verbatim responses highlighted 'time management' and 'ethical and emotional concerns' as factors that made the peer review process challenging.

Time Management

Many of the participants shared that managing time was a challenge during their involvement in the peer review process. Participant 1 stated: *"Managing time was a challenge. Working and studying is hard... after long hours of duty and all, umm... we barely get the time. Even after an extension (to the due date), I couldn't complete it for PR."* Similarly, Participant 3 stated: *"The challenge was I was having, um, not so much time to finish my assignment, so when I submitted it for PR, the assignment was not very complete."* She further specified the impact it had on her role as a reviewer: *"Because I was unable to finish the assignment, I was not able to give PR feedback the way I was expected to,"* indicating the importance of adequate time for effective feedback.

The study results also show that balancing work and study was challenging, leading to incomplete assignments, which in turn influenced the feedback given and received. However, one participant's statement highlighted a sense of commitment despite time constraints: *"Time was a challenge. The amount of time I wanted to give for this (PR), I was unable to give, and even when I made time for PR, I left my assignment incomplete and gave feedback. It was at the back of my mind that the time I could use for my assignment... I'm giving for this (PR). I felt this, but this (PR) is something that we wanted to do, and we committed to this from the beginning, so I tried to do it to the full potential."* This suggests that, despite the lack of time, some students attempted PR to the best of their capability.

In contrast, Participant 2 found time management easier because of PR. She stated: *"I found it easier to manage time. I finished my literature review very early on, then after doing the corrections I got sick and all, so got a bit delayed, but still I finished my lit review because peer review had to be done. So, I was able to finish early, and it made time management easier."* This suggests that PR, as a pedagogical tool, has the potential to motivate learners to start working on assignments early.

Impact on Self and Peer Relationships

Consequences on both self and peer relationships related to PR were also addressed by the study participants. There was variation in perception regarding giving PR to colleagues. Most of the participants stated that they did not find it difficult to provide feedback to their peers, while a few found it challenging.

According to Participant 1, *"I didn't find it difficult to give feedback, even though they are my colleagues...um... I gave feedback based on what was there."* Similarly, Participant 5 stated, *"I don't think giving peer review is difficult just because they are colleagues. I was very honest in that aspect. I read the guide very thoroughly, followed the guide, and gave marks. I think she will most probably understand. I have given enough (written) feedback in each area."* Similarly, Participant 4 stated, *"I didn't feel anything like that because... I gave feedback (based on) how I felt and based on the knowledge I have. I was able to give genuine feedback."* These statements suggest that confidence

and competence in giving feedback, as well as integrity, play a role in the ability to provide genuine feedback.

Additionally, Participant 3's statement, *"I even highlighted very, very minor mistakes also, like grammar and spelling mistakes, because I wanted it to be as beneficial as possible for her and to correct it. So, I gave every feedback that I could have given. Because she is a colleague, I did not want to leave anything,"* suggests that familiarity with the colleague and the desire to help them may override the fear of disappointing them, thus facilitating the provision of genuine feedback.

In contrast, Participant 6 stated, *"...having to give marks, it was a little bit difficult, especially because it is someone I know. I keep thinking she might become upset, so like that, it was a bit difficult, so I became a little biased, I think."* A similar perception was shared by Participant 2: *"Giving marks to a colleague... yes, (it) was very difficult. I know it is not the real mark, but I was like... I must give fewer marks to this part; the good part I gave good marks and positive comments too. It was difficult to give low marks even though the part was poorly done. But I did give because it was for improvement... it did come my mind a little bit, like, what they might think... like... she is stricter than the teacher."* These statements indicate that a few students experienced 'peer pressure' and feelings of uncertainty regarding whether they had given the deserving mark or not.

Discussion

Peer review (PR) is a pedagogical tool that actively engages students in the feedback process, fostering participation and critical thinking. The present study indicates that participants perceived PR as an effective tool that enhanced their learning and improved academic outcomes. Similarly, an empirical study by Serrano-Aguilera et al. (2021) on the application of peer review in various higher education programmes demonstrated that proper implementation provides reliable feedback and positively impacts student performance. Consistent findings were reported by De Brún et al. (2022) in a mixed-methods study evaluating formative peer assessment in a research module, which revealed a positive perception of peer appraisal among participants. However, a meta-analysis by Double et al. (2020) of experimental and quasi-experimental studies assessing the effect of peer assessment on academic performance found only a small to moderate impact on academic outcomes. Nevertheless, after examining moderating effects through meta-regression, Double et al. (2020) concluded that peer assessment's effectiveness was robust across different contexts, supporting the present study's findings. Different contexts, supporting the present study's findings. These results indicate that was well received by study participants and deemed beneficial to their learning process.

Regarding perceived benefits, participants believed they gained academic advantages through engagement in the peer review process. The analysis of verbatim transcripts highlights the development of active learning, critical thinking, and collaborative learning as key perceived benefits. Väyrynen et al. (2023) similarly reported that PR fosters student engagement in critical thinking and active learning. Likewise, Harutyunyan and Poveda (2018) concluded that peer review enhances student engagement, critical thinking, collaborative learning, academic writing, and the overall quality of final submissions. The present study further revealed that PR facilitated critical thinking by requiring students to utilise cognitive skills to familiarise themselves with assessment criteria to a degree that enabled them to provide constructive feedback. Participants affirmed that they learned from their

peers' feedback as well as through the process of providing feedback themselves. Prior research corroborates that engaging in PR is a cognitively demanding, enhances feedback skills, and promotes collaborative learning (Harutyunyan & Poveda, 2018). Moreover, PR has been identified as a pedagogical tool that develops collaboration, negotiation, and interaction skills necessary for real-world settings (Prompan & Piamsai, 2024). Similarly, a quasi-experimental study by Rico-Juana et al. (2022) established that collaborative peer assessment improves learning outcomes. PR is also considered useful in building critical skills like reflection, autonomy in learning ability to gain a deeper understanding of the subject content, and evaluation criteria (Iglesias Pérez, 2022). Despite these perceived benefits, challenges faced during the PR exercise was also highlighted by the participants.

The findings of the present study indicate that lack of time due to academic, professional, and personal commitments was a substantial challenge for most of the participants. This had a negative impact on the timely completion of assignments, affecting the quality of feedback given and received. This finding is consistent with existing literature, which highlights that time constraints are a key challenge to reviewers, leading to incomplete or rushed comments ultimately diminishing the feedback quality (Cendani & Purnamaningwulan, 2023). Despite identifying time constraints as a challenge, participants acknowledged that PR can encourage students to reduce procrastination and initiate assignments sooner, leading to higher-quality submissions. This is consistent with the findings of Tornwall and Ikonen (2024), who noted that having the opportunity to receive feedback from both supervisors and peers improve their work prior to submission.

Additionally, peer pressure also emerged as a challenge in implementing PR. While much of the existing literature highlights peer pressure and the fear of having a negative impact on friendships as major barriers to providing objective feedback (Cendani & Purnamaningwulan, 2023; De Brún et al., 2022), most of participants in the present study shared a different perspective. Although some initially felt apprehensive about possibly upsetting a peer, they reported this did stop them from giving honest and constructive feedback. This could be attributed to their confidence and competence in giving feedback, a strong sense of integrity, or a genuine desire help their peers improve outweighing the fear of disappointing them. However, one participant did express discomfort in giving feedback to colleagues citing concerns about disappointing a friend and doubting their own ability to assess fairly, leading to overscoring despite providing genuine feedback. This experience aligns with previous research which indicates that students worry their feedback may negatively affect their peers' motivation and emotion (Kurniawati, 2021; Yu, 2021), thus avoiding critical feedback comments (Cendani & Purnamaningwulan, 2023) and leading to overmarking (Panadero & Alqassab, 2019). This issue could be addressed by maintaining anonymity in peer review- a sub-theme that emerged from the data of the current study.

Participants perceived peer review to be most effective when it is implemented as a formative assessment and while maintaining anonymity. Majority of participants stated that anonymity would make them more comfortable providing accurate feedback and would prevent bias. Prior research also highlights that anonymity improves feedback quality and facilitates critical feedback (De Brún et al., 2022), as social relationships among peers may influence feedback processes (Yang & Carless, 2013). Consequently, participants suggested that implementing formative

peer review would be more effective, as students are more likely to award higher scores if peer review is summative and contributes to final grades.

Recommendations and Implications

The findings of the present study conclude that using peer review as a pedagogical tool enhances student learning by motivating and engaging them in the learning and assessment process. Given its ability to develop critical thinking skills and promote active learning, PR should be adopted at all levels of higher education. However, for successful implementation, it must be carefully designed with adequate student guidance prior to its implementation to achieve optimal outcome. Providing unbiased feedback could be challenging; therefore, training students in the feedback process is essential to facilitate constructive and impartial feedback. Frequent and timely involvement of lecturers is also crucial to ensuring the successful implementation of peer review. Additionally, it is crucial to foster a culture that values and respects peer review in order to make the students to take it seriously. Universities should consider integrating formative peer review early in the assessment process, providing sufficient time for students to apply the feedback before the final submission.

Further research is needed to examine the impact of peer review on academic outcome in the local context. Despite having a vast body of literature available, findings specific to the Maldivian higher education settings would provide valuable insights for shaping effective teaching practices in the Maldives. Additionally, well-implemented peer review strategies could contribute to greater student satisfaction, ultimately enhancing the quality of education and employability of graduates. Additional research would provide insights into how students can support one another and the kind of assistance lecturers should provide to optimise learning outcome.

Conclusion

In conclusion, this study highlights the valuable role of peer review (PR) as a pedagogical tool in higher education. Participants viewed PR as a meaningful way to strengthen critical thinking and communication skills, while encouraging active learning through peer interaction. They found the PR process engaging and motivating, noting that it helped build a sense of accountability and contributed to improved academic performance. However, the participants acknowledged several challenges including overscoring, peer pressure and difficulty in interpreting feedback. Participants believed these challenges could be addressed by maintaining anonymity of the reviewer, and using PR as a formative assessment to help reduce bias and improve the outcome.

The findings emphasise the importance of carefully designing and implementing PR, supported by clear guidance from the faculty and proper training of students. Further research which is focused on the local context is needed to better understand how PR influences academic outcome in the Maldives. Such insights could help design more effective teaching strategies, increase student satisfaction, and improve the overall quality and employability of graduates. Identification of strengths and challenges of peer review will assist in moving towards a more enriching and supportive learning environment in higher education.

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Conflict of interest

Author has no conflict of interest to declare.

Declaration

This paper was originally submitted to Capstone Project/EST47 as part of a course requirement at Faculty of Education, the Maldives National University on 30 June 2025. As a result, it appears in the Turnitin which has contributed to the current similarity index of 47%

I confirm that I am the original author of this work, and the content is entirely my own. All external sources used have been properly cited according to the journal's required citation style. This work has not been previously published or submitted to any other journal.

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