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Triyanto
Sebelas Maret University, Indonesia

Rif'ati Dina Handayani
University of Jember, Indonesia

Exploring Peer Feedback Behaviour in Online Teaching Practice Classroom: Case of Learning Design

Abstract

This study aims to explore teachers' peer feedback behaviour in online teaching practice classes. Qualitative research was conducted on 32 physics teachers who conducted a teacher professional curriculum. Data were gathered through interviews, observations, and online discourse archives. Six steps were taken in analysing the data: preparing and organising data, exploring data, developing themes, representing findings, interpreting findings, and validating the accuracy of the findings. The results showed that peer feedback behaviour focused on learning design content and teachers' performance. Peer feedback connects teachers' ideas with those of their colleagues, open-mindedness, and encourages reflective thinking. This study realises peer feedback is a mutual dialogue to enhance teachers' pedagogical competence in teacher professional curricula.

Keywords: *learning design, online teaching practice, peer feedback*

Introduction

Technology has changed the teachers' mindset so that learning no longer needs to occur close or face-to-face. Online teaching and learning have been realised and implemented in the classroom because it has greater flexibility, interactivity, and a futuristic nature (Day et al., 2021). Teachers face significant challenges when adapting to online teaching by staying in touch with students (Carrillo & Flores, 2020). Online teaching requires different capital and preparation than face-to-face learning in traditional classes (Ko & Rossen, 2017). It emphasises communica-

tion, classroom setting, and time management. Several researchers point out the benefits of online learning involving formulation of future policy changes and improvement of e-learning management in the education system (Beruin, 2022), providing opportunities for lifelong learning (Mirķe et al., 2019), and pushing teachers to create an interactive, inspiring, fun, and challenging learning atmosphere that motivates students to participate actively (Donia et al., 2021).

In higher education, online teaching practices are often employed to increase teacher competence in entirely online, blended learning, or web-assisted courses. Online teaching practices pose challenges related to delayed collaboration and narrowing teacher distance (Handayani & Triyanto, 2022). Online teaching practice is intended to develop teachers' instructional skills regarding problem identification, decision-making, communication skills, and selecting appropriate approaches to solving problems in various classroom situations (Khalid, 2014). Online teaching practice aims to reduce the gap, align between theory and practice, and provide valuable experience and refreshment in online learning settings (Basturk, 2016).

Peer feedback is a process whereby an individual or peers can receive information and comments from colleagues or classmates and adapt it to improve the quality of their work. It is a strategy that allows students to be involved in the learning process to make them aware of the importance of learning activities (Mercader et al., 2020). Peer feedback provides a valuable contribution to the process of analysis and reflection on the quality of the teaching and learning process (Oni et al., 2023; Van Rompay-Bartels & Geessink, 2023). Although feedback is very beneficial, the issue is that putting teaching practices in place rarely incorporates peer feedback. The facilitator or teacher regularly provides feedback on their students' work and learning activities. Teachers lack concern that their pupils can provide their peers with constructive feedback (Carless & Boud, 2018). Additionally, according to Neubaum et al. (2014), learners are still unmotivated to give feedback to their peers and are suspicious of both the value and quality of the feedback they receive from colleagues (Alqassab et al., 2018). According to the description, the research aims to investigate how teachers behave to peer feedback in online teaching practice classes.

Research Methodology

Participant

Participants in this study were 32 physics teachers, 11 males (33.3%) and 21 females (66.7%), with an age range of 25-40 and an average working of 7-15 years. For participant confidentiality purposes, their identities are initiated M for males and F for females. Participants come from diverse parts of the country and currently attend an online professional teacher curriculum at a public university in Indonesia. Teacher professional education is a formal education in higher education organised by the Indonesian government to enhance teacher competence professionally.

Research Design

This study implemented a case study method to explore a peer feedback issue in more detail and depth. This research adopts an interpretive approach to facilitate in-depth exploration in natural contexts to achieve the research objectives. This study's teachers' learning designs were carried out in three cycles. In each cycle, all participants presented their learning design online via Zoom Cloud Meeting for approximately 20 minutes. After the presentation, the presenter will receive verbal feedback from their colleagues for about 15 minutes. Also, each participant must upload their lesson plan documents in the Moodle discussion forum's Learning Management System (LMS) to continuously obtain further textual feedback. All participant actions were recorded and documented. In this study, participants were given the autonomy to provide feedback. In a rational sense, research participants are teachers with the maturity to think and experience.

Data Collection

Data were gathered from interviews, observations, and online discourse archives. The interviews used open interviews because open interviews can explore deeper information without being limited by the researcher's perspective. Open interviews help researchers gather more detailed and in-depth information. Interviews were conducted at the end of each cycle with a time range of 10 minutes for each participant respectively. The observation was completed online from the beginning of the lesson plan cycle to the end, accompanied by a recording. Researchers directly observed online teaching practices and also re-observed activities through video

recordings. The online discourse archives gathered in this research are learning design artefacts compiled by participants in all cycles and uploaded to the LMS, as well as the activities of all participants in discussion forums.

Data Analysis

The data were analysed qualitatively through six stages: preparing and organising data, exploring data, developing themes, representing results, interpreting findings, and validating the accuracy of the findings. First, the data is arranged in file folders containing recordings of interviews and observations. The interview data were then transcribed into text and grouped based on the similarity of issues and ideas. Transcription refers to the conversion of recording data into a written text that can be utilised to examine particular issues and encompasses prospective ethical concerns and dilemmas (McMullin, 2023). After all, the researcher conducted a preliminary analysis of all the data using a deductive approach to support data organisation and management. The deductive approach means applying predetermined codes or themes from the literature developed for the data (Azungah, 2018). The researchers read carefully to understand the teacher's peer feedback behaviour. This process aims to explore and reduce databases into themes or categories. Reduced or sorted data are arranged based on similarities and labelled to build themes. Furthermore, the themes that have been obtained are analysed and re-analysed to get valuable findings and achieve the research objectives. The findings were then validated using triangulation and associated with other studies on peer feedback in online learning.

Results

Peer Feedback Behaviour in Online Teaching

Online teaching practice is an activity that uses a virtual classroom environment to enhance teachers' knowledge, abilities, and pedagogical competence. Valuable teaching starts with making a good learning design. In this study, peer feedback was given among teachers concerning the learning designs that had been presented orally and textually through discussion forums in the LMS. The results of data analysis show that peer feedback focuses on content and teacher performance (Table 1).

Table 1. Peer feedback behaviour on teachers' learning design

Feedback Focus	Components
Content	a. Subject material correctness b. Planning rationalisation c. The appropriateness of the learning model syntax d. Learning strategy/ method e. Learning media f. Assessment accuracy g. Timeliness
Performance	a. Communication b. Fluency c. Presentation timeliness

The observations indicated that most peer feedback (29 from 32 participants) leads to learning design content. Teachers pay close attention to every detail of the lesson plan, from learning objectives to evaluation processes. They read and carefully reviewed all the details of the lesson plans. LMS discussion forums also provide broad opportunities for mutual dialogue and sharing of teachers' experiences without time restrictions. They could share and adopt much valuable knowledge in the teaching practice class. The participants believed that evaluation was given to make the lesson plans could be used effectively and efficiently to accomplish learning objectives. One participant posits that the proper lesson plan will influence how learning is implemented and how well the learning objectives are achieved. Teachers should be aware and receptive that online learning is different from face-to-face. Teachers' interaction, communication style, electronic devices, and Internet signals significantly influence students' activity and learning environment. The following is an example of participants' opinions regarding their feedback.

> "Can you fit in many things in your class? It would be more acceptable if the experimental tasks were simplified so that the time allocated was more efficient and on target" (Observation C2_M)

> "It would be even better if the experiment relates to the student's daily life, such as rubber bracelets and spring" (LMS C1_F)

> "The learning method used is exceptional, but our experience has shown that it requires a lot of time and effort" (Observation C3_F)

"It would be better to check and recheck the stages of the project-based learning model that will be used, especially at the orientation phase. It seems that some improvements are required" (LMS C3_F)

"In order to stay within the allotted presentation time, it is best just to discuss the most crucial aspects of the student's activities" (Observation C3_M)

Teachers' Perspective on Peer Feedback

The interview results indicated that the peer feedback received positive responses and appreciation from the participants. Most participants thought peer feedback fit them because being evaluated could be a practical encouragement to initiate and develop their skills and knowledge. Teachers feel relaxed and unpressured when they share experiences with their peers. Peer feedback trains teachers to be more open-minded. Additionally, it enables them to verify, check, and recheck the lesson plans more comprehensively and practice good review skills. One participant claimed that first-cycle peer feedback allowed them to contrary their prior knowledge more than in further cycles. Cyclical peer feedback teaches them to be more objective and open-minded in accepting suggestions and criticism from others. They emphasised that implementing multiple-loop feedback from their peers provided valuable experience for expressing opinions correctly and training to engage in active dialogue and mutual interaction. The following are examples of teachers' responses.

"Peer feedback makes us more open-minded and eager to accept criticism and hints from others" (Interview C3_F)

"Peer feedback activities give us the valuable experience to be more objective in giving an opinion" (Interview C3_M)

"Repeated peer feedback teaches us to be meticulous and objectively when reviewing the lesson design of the peers" (Interview C3_F)

Interestingly, 4 out of 32 participants preferred giving direct feedback rather than writing in a discussion forum at LMS. Participants argued that they could directly communicate with their peers in two directions by listening and reconfirming peers' input. On the other hand, 28 out of 32 participants preferred written feedback via the LMS. They argued that they could download the learning design

artefact, read and review it numerous times, and were not restricted in time and space. Also, discussion in LMS makes them more focused on the content of the learning design. In simple terms, textual feedback makes participants calm to examine and read comments from their colleagues repeatedly, allowing for achieving valuable feedback points.

> "Verbal feedback is more appropriate than textual because we can interact, hear, and confirm input directly from the peers" (Interview C3_M)

> "We prefer written feedback at LMS because we can review lesson plan documents in more detail and see comments from other peers" (Interview C2_F)

> "Textual feedback on the LMS can be read over and over again so that lesson plan improvements can be maximised" (Interview C3_F)

Discussion

Peer feedback expresses the accumulation of knowledge from various sources and experiences synthesised in the mind. Peer feedback involves complex thinking skills ranging from understanding goals to analysing, visualising, synthesising, and communicating the results of their thoughts based on various knowledge and experience. The results are notable that peer feedback focuses on the content of learning design and teacher performances. The study's teachers substantially preferred using organised expression when giving feedback concerning designing student learning activities. It is illustrated that teachers are aware of how much the lesson plan's content and a teacher's performance affect students' learning participation. Good planning and best teacher performance will encourage students to participate actively and expressively in learning. Persico et al. (2020) posit that learning design involves teachers' complex decision-making processes to prepare high-quality student learning experiences. Learning design concretely manifests the teacher's ability to prepare students to learn. In short, providing feedback on learning design is the best step for teachers to achieve learning goals effectively, efficiently, and meaningfully for students in learning. Peer feedback was a social interaction and collaborative form of learning that allowed learners to evaluate and elaborate on new knowledge by comparing their understanding with others (Yoong et al., 2023).

Providing constructive feedback on a peer's work is not an easy process. Teachers should be able to regulate and control their thoughts to remain focused on the effectiveness of implementing the lesson plans. Peer feedback accustoms participants to think before expressing their opinions and comments in precise language to make their peers easily understand and accept feedback without offending individuals. Gikandi and Morrow (2015) considered that peer feedback develops students' self-regulated learning and reflection abilities. Peer feedback is a dialogue approach that involves emotional and rational support by allowing learners to express themselves (Steen-Utheim & Wittek, 2017). Providing comments in online discussion forums concerning their peer learning design is a mutual collaboration and social interaction among the learners. Feedback through online discussion forums accustoms teachers to provide appropriate comments and arguments based on the results of their studies and reviews. Online feedback in discussion forums is an isolated form of communication and interaction that attempts to build a social culture in a virtual setting (Picciano, 2019). In this process, teachers can mutually monitor the progress of their colleagues' work, whether the initial lesson plans are revised or ignored. This behaviour helped the learner build new interpretive frameworks by taking other meaningful perspectives, significantly contributing to his work, and acquiring new knowledge. Xie (2013) posits that feedback in online discussions can increase learners' motivation and participation in learning because opportunities to share their ideas are longer without a time limit and can be completed anywhere in the open-air classroom.

This study illustrates the productiveness of peer feedback behaviour in building a constructive, collaborative atmosphere for teachers during designing lesson plans. Peer feedback in online teaching practice provides a robust learning environment for teachers in which discussion, evaluation, and reflection generate continual opportunities to upgrade their teaching skills and knowledge in constructing learning designs. The peer feedback process is a meaningful communication that can support teachers to be more open-minded and reflective in understanding and internalising the feedback received as something precious about their learning design. Peer feedback will stimulate teachers to build meaningful understanding and new experiences to improve their pedagogical competence and achieve learning goals and expected results. For this reason, peer feedback must be continuously implemented through a meaningful collaborative atmosphere since it is a valuable process, especially for teachers.

Limitations and Future Implications

As a form of evaluation of the study's results, there is a limitation in this research. The research is conducted on a small sample of participants with the subject of physics teachers at a public university so that the findings cannot be generalised. Further research in another context by more diverse students and different learning styles is necessary to confirm the positive results of this study. This research can continue to be implemented and developed in other professional teacher training or teacher community training to realise the impact and benefit of peer feedback.

Conclusions

The visible peer feedback behaviour in online teaching practice focuses on the content of learning design and teachers' performance. Peer feedback allows teachers to express their opinions through an interactive and meaningful dialogue. Teachers give positive responses to the implementation of peer feedback. Peer feedback trains teachers to think openly and reflectively to receive suggestions and criticism from their colleagues. Teachers can mutually monitor the progress of their peers' work, whether the initial lesson plans are revised according to the peer feedback given or ignored. Peer feedback facilitated the teachers to improve their learning design based on their peers' constructive perspectives and open-mindedness in developing lifelong learning skills.

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AUTHORS

TRIYANTO

Professor of Civic Education, Sebelas Maret University
Jl. Ir. Sutami 36A, Surakarta, Central Java 57126, Indonesia
E-mail: try@staff.uns.ac.id
ORCID: https://orcid.org/0000-0003-0083-1018

RIF'ATI DINA HANDAYANI

Associate Professor of Physics Education, University of Jember
Jl. Kalimantan Tegalboto No. 37, Jember, Jawa Timur 68121, East Java, Indonesia
E-mail: rifatidina@gmail.com; rifati.fkip@unej.ac.id
ORCID: https://orcid.org/0000-0001-5860-1202