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# Lecturers' Perceptions of Online Discussion Forums as Pedagogical Tools in Teacher Education Modules

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**Research Article**

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# Abstract

Online discussion forums have become important pedagogical tools in higher education. This is because they provide opportunities to extend student participation in the course and create reflective practices. The researchers of this study adopted a qualitative, multi-site case study research design involving three higher education institutions, which enabled them to explore lecturers' perceptions and lived experiences of using online discussion forums and monitoring discussion threads in the teacher education modules they teach. Guided by the Engagement Theory, the study investigates how lecturers design, facilitate and assess online forum activities. It also explores the advantages and challenges that lecturers encounter when using such pedagogical tools. The researchers collected data through semi-structured interviews with lecturers teaching language education modules. The researchers also analysed certain course materials, forum prompts, discussion guidelines, and student contributions. The findings of this study indicate that online discussion forums are beneficial for student success, promoting student collaboration and critical thinking. However, challenges, such as a lack of student participation, the need for advanced digital literacy skills, and maintaining student motivation in their participation, were highlighted by the lecturers. The study concludes that online discussion forums can enhance pedagogical practice and support the development of student teachers' success in their modules. The significance of this study is that it offers practical insights for lecturers using discussion forums in their modules.


# INTRODUCTION

The increasing integration of modern technology for teaching and learning in higher education has led to changes in teaching practices. One of these changes includes the adoption by lecturers of online discussion forums embedded within Learning Management Systems (LMS) in higher education. LMS is a computerised software platform that centralises and manages teaching and learning resources, assignments, as well as student data. It enables lecturers to deliver content, monitor student engagement, and trace student progress efficiently across courses and terms (Camacho & Legare, 2021). Among the various tools LMS provides, online discussion forums are particularly valuable in higher education.

Discussion forums are platforms where students engage in structured interaction, while discussion threads refer to the specific prompts through which students review topics, research, reflect and post their thoughts. These posts can be seen by both the lecturers and peers. The discussion forums are thus spaces that ensure collaborative learning, support student participation (particularly for quieter students), and can serve as tools for reflection and peer interaction. (Camacho & Legare, 2021). Through the use of discussion forums and carefully designed discussion threads, lecturers are able to extend student interactions, create opportunities for reflective activities, develop critical thinking skills and promote collaboration among student teachers (Essa et al., 2023; Shange, 2023). Lecturers are also able to design appropriate and meaningful activities that enhance students' participation and improve the achievement of learning outcomes (Moosa, 2022). These forums also provide opportunities for student

teachers to engage with the actual course content, exchange ideas with their fellow classmates, critically think about the discussions posed and add their own views (Essa et al., 2023).

For the purpose of this study, it must be noted that there is a difference between discussion forums and discussion threads. In this study, discussion forums refer to the online spaces within a Learning Management System (LMS) where interaction takes place between students and their lecturers as well as their peers. Discussion threads, however, refer to the specific prompts or topics designed by lecturers and the subsequent interactions among participants within those spaces.

Although in contemporary higher education, online discussion forums are widely available in higher education LMS, their effective integration varies and is inconsistent (Aderibigbe, Dias, & Abraham, 2021). Certain South African studies (Moosa, 2022; Shange, 2023; Van Wyk et al., 2024) highlight challenges such as erratic participation, digital-literacy gaps, connectivity issues and lack of institutional support that affect participation in online discussion forums. Many lecturers report either not using them or challenges in designing tasks that encourage meaningful and relevant discussion and ensure constant student participation and motivation. Furthermore, there is limited research that investigates lecturers' perceptions of these forums, specifically in the context of preparing student teachers for their future careers. The problem that this research intends to address is the limited understanding of how lecturers perceive and use online discussion forums as pedagogical tools within teacher education modules, including the advantages and challenges they experience within teacher education modules. This gap that this study, therefore, fills is the lack of research regarding lecturers' lived experiences of using online discussion forums to provide valuable insights that can improve effective pedagogical practices in teacher education.

This study is significant because it provides valuable insight into how lecturers perceive and use online discussion forums as pedagogical tools in their teacher education modules. It also explores their views on the advantages and challenges of discussion forums. By exploring these aspects, this study contributes to the development of improved teaching strategies that ensure collaboration, critical thinking and self-reflection among student teachers.

Based on the above, the following main research question was adopted for this research.

- How do lecturers perceive and experience the use of online discussion forums as pedagogical tools in teacher education modules?

From this main research question, three sub-questions were developed:

- How do lecturers design and facilitate online discussion forum activities to support student teachers' learning?
- What advantages do lecturers identify in using online discussion forums for student teacher education?

- What challenges do lecturers encounter when using online discussion forums in their teaching practice?

Following the above introductory discussion on the relevance and recent interest in discussion forums, the sections which follow focus on the theoretical framework chosen to guide this research, a comprehensive literature review on the topic, an exploration of the selected research methodology and the findings. Lastly, concluding remarks will be made, and the key findings and implications for future research and educational practice will be discussed.

**Engagement Theory**

In 1998, Greg Kearsley and Ben Shneiderman developed the Engagement Theory (Kearsley & Shneiderman, 1998). It emerged from the fields of educational technology and instructional design and was mainly seen as a framework for designing learning activities in online and technology-supported environments.

The main idea of this theory, which made it relevant for this study, is that students learn best when they are meaningfully engaged through interaction, collaboration and involved in authentic tasks. In other words, learning should be active, social and purposeful, rather than passive or individualistic (Kearsley & Shneiderman, 1998; Tomović, 2021).

Kearsley and Shneiderman (1998) proposed three main interrelated principles that define engaged learning. Firstly, “relate” refers to the fact that learning occurs through collaboration and interaction among students, promoting communication, teamwork and interpersonal skills. Secondly, “Create” entails students participating actively in creative and meaningful tasks or projects that require active participation, resulting in them becoming problem-solvers. Finally, “donate”, highlights that the learning process should lead to tangible, practical outcomes that can be used beyond the classroom (such as projects that have real-world significance or are beneficial to others). As a whole, these principles emphasise active engagement, authentic learning and social interaction. Clearly, these are essential elements of effective online and blended learning.

Numerous advantages of this framework have been cited (Kearsley & Shneiderman, 1998; Tomović, 2021). Firstly, it supports collaborative learning as it encourages group work and peer interaction. Such collaborative activities are central parts of online discussion forums. Secondly, it promotes authentic learning as students are required to engage in meaningful tasks, which involve real-world and critical thinking and problem-solving. Thirdly, it enhances motivation and participation because students are now positioned to take ownership of their learning through their creation and contribution. Finally, it integrates excellently with digital learning environments. From all the above, it can be clearly seen that this theory aligns with the topic of this study, as it integrates naturally with online discussion forums, project-based learning, and virtual teamwork.

Despite the above advantages, Engagement Theory also has certain limitations (Miliszewska & Horwood; Tomović, 2021). Most notably, it requires high student motivation and participation as engagement depends on the students' willingness to collaborate. It also requires that all parties concerned are competent and proficient; in other words, it demands a certain level of digital skills. Assessment of student interaction in the discussion forum can be challenging and demand additional time from the lecturers already overloaded workload as designing, moderating, and assessing interactive activities can be time-consuming.

The following section outlines the literature review, where the Engagement Theory serves as a guide through which the discussion on online discussion forums and lecturers' perceptions is explored.

# LITERATURE REVIEW

### 1. Understanding Online Discussion Forums

Online discussion forums are widely recognised as essential elements of online learning environments, especially in higher education. Discussion forums are viewed as structured and interactive online platforms, which enable asynchronous communication and collaboration among participants. They allow participants to interact, comment on peers' contributions, build on each other's posts and reflect on their own learning experiences on these forums (Camacho, 2020; Essa, 2021). In this way, discussion forums help to develop a social presence (Moore & Millier, 2022) in an otherwise virtual learning environment. Students find that actively participating in discussion forums provides flexibility, especially those trying to balance their studies, work and personal responsibilities (Aderibigbe et al., 2021). This collaborative nature of discussion forums mirrors the "relate" principle of the Engagement Theory, as it emphasises that successful teaching and learning occur through meaningful social interaction and peer engagement.

Discussion forums are often integrated into LMS, where students and lecturers engage in related text-based discussions related to course content (Aderibigbe et al., 2021; Hysaj & Hamam, 2022). These forums serve as virtual classrooms as the participants post responses within discussion threads based on the lecturer-generated prompts. Lecturers in higher education utilise these platforms as teaching tools and also as a way to observe student reflection and provide feedback. This also aids in developing a sense of a constructive learning community (Camacho, 2020). Furthermore, the "create" principle of the Engagement Theory, which emphasises active, purposeful participation in authentic learning tasks, aligns well with the topic of this research, as it encourages students to be active creators and contributors of content on the discussion forums.

### 2. The Use of Discussion Forums in Education

The use of online discussion forums has grown significantly across higher education settings. This is particularly because of the growing trend and popularity of blended and fully online teaching and learning approaches. A study by Aderibigbe (2021) found that discussion forums encouraged students

to express and justify their views, defend them, reflect critically and engage meaningfully with their peers in teaching and learning. Similarly, Aderibigbe, et al. (2021) observed that online discussion forums are beneficial as they complement the face-to-face teaching that students were exposed to. This was particularly valuable for collaborative exploration of assignments and conceptual topics. These forums also provide opportunities for students to "donate" their learning by producing subject-related content or reflections that they have generated. Clearly, this links with the third principle of the Engagement Theory, namely "donate".

In teacher education and broader higher education contexts, Camacho (2020) highlighted that discussion forums became crucial during the COVID-19 pandemic, as face-to-face teaching and learning were disrupted. They helped ensure that students remained connected to their studies, engaged, and actively involved in the whole learning process. Discussion forums are used to encourage discussions, feedback and community building, which is especially advantageous for students who are less confident in participating in live discussions. Essa (2021), focusing on a South African higher education institution, found that these asynchronous forums humanised the learning experience. They provided a platform for students to share their personal, cultural and social experiences, thereby developing a sense of empathy and inclusion.

Moore and Miller (2022) reinforced that discussion forums are central to developing cognitive presence. A key dimension of meaningful online learning was the fact that they were able to develop a certain cognitive presence (Moore & Miller, 2022). When carefully structured, they stimulate students' curiosity. Students are also able to explore different ideas, thus integrating the new knowledge acquired into their existing knowledge and becoming problem solvers. Hysaj and Hamam (2022) similarly argued that discussion forums promote higher-order thinking skills and reflection in higher education, particularly when designed using the higher-order levels of Bloom's taxonomy.

## 3. Advantages of Online Discussion Forums

Numerous researchers have outlined the advantages of discussion forums in higher education. These are discussed below:

### *Promotion of Deep Learning and Critical Thinking*

Forums provide a learning environment for deep, reflective engagement. This allows students to explore the ideas gained critically and connect the theory learnt to their personal or professional situations (Aderibigbe, 2021; Moore & Miller, 2022). As previously mentioned, discussions or forums are able to promote higher-order thinking skills, reasoning, and argumentation through continual written dialogue (Hysaj & Hamam, 2022).

### *Enhanced Collaboration and Community Building*

Various studies (Camacho, 2020; Essa, 2021) highlighted that discussion forums create a sense of belonging and social presence. Essa's (2021) research in South Africa reported that they assist in

"humanising" online pedagogy by enabling students to express their emotions, cultural perspectives and share their own experiences. Similarly, Camacho (2020) found that they promote inclusion, allowing quieter or less confident students to contribute meaningfully to the discussions.

***Flexibility and Accessibility***

The asynchronous feature of discussion forums allows students to participate in the discussions at their own pace, which helps cater for different learning preferences and time constraints (Aderibigbe et al., 2021).

***Pedagogical Value for Lecturers***

For lecturers, discussion forums are excellent diagnostic tools as well as updated pedagogical approaches. They provide valuable insight into students' understanding of the course content and their thinking processes. This results in more responsive teaching (Aderibigbe et al., 2021; Moore & Miller, 2022). The discussion forums also encourage lecturers to design activities that create social, cognitive and teaching presence within online courses (Moore & MIller, 2022).

From the above, it is clear that discussion forums can improve cognitive engagement, develop communication skills, and strengthen student–lecturer interaction within teacher education in higher education modules.

**4. Challenges and Disadvantages of Discussion Forums**

Despite the above advantages, several challenges limit the effectiveness of online discussion forums.

***Uneven Participation and Surface Learning***

Several studies indicate that not all students engage equally or meaningfully. Aderibigbe (2021) reported that about eleven per cent of participants contributed only surface-level responses. Similarly, a study concluded by Aderibigbe et al. (2021) found that some students were hesitant to participate because they felt uncertain and unfamiliar with the platform. Hysaj and Hamam (2022) added to the above that the slow rate of peer responses and their unequal participation often caused frustration and reduced motivation rates.

***Structure and Facilitation Challenges***

For discussion forums to be successful, they must be designed clearly with very clear guidelines which contain detailed instructions. The discussion forums themselves must contain engaging prompts. Active lecturer presence is also significant (Aderibigbe et al., 2021; Moore & Miller, 2022), as instances where this does not occur cause the discussion forums to be unsuccessful. Discussion forums that are not well designed or those that were not moderated can be superficial, repetitive, or unrelated to the course content, which reduces the opportunities for critical engagement (Essa, 2021).

***Workload and Time Constraints***

A study by Camacho (2020) argues that managing online forums can be very time-consuming. Developing discussion questions, moderating the posts by students and providing feedback can be demanding for lecturers who have already overburdened their workloads. This is especially true in large classes or areas with limited technological resources.

***Technological Challenges***

A study by Essa (2021) found that numerous digital inequalities exist in the South African higher education context. These are limited internet access and data costs, which prevent students from participating and benefiting from the discussions. These barriers result in significant challenges for students living in rural areas and not close to the higher education's regional centres.

From the above, we can see that online discussion forums are valuable and relevant pedagogical tools within higher education and teacher education modules. They promote deep learning, collaboration and critical reflection. Lecturers can also gain valuable insights into students' understanding of the course content. However, challenges exist. Some of these noted are uneven participation by students, unstructured discussion prompts and lack of monitoring by lecturers. These can hinder their educational benefits. For lecturers, the challenge lies in designing inclusive, engaging and reflective discussion forums that ensure both cognitive and social growth, which would improve the quality of teaching and learning.

# METHODOLGY

**Research Design**

The researchers of this study chose a qualitative research design for this study as they felt that through the use of this approach, they would be able to obtain relevant information from the personal experiences and opinions of the lecturers interviewed regarding their use, design of discussion forums, as well as their advantages and disadvantages. A qualitative approach aims to obtain a deep understanding of human experiences. It interprets non-quantitative data within its specific social and contextual background (Islam & Aldaihani, 2022). The researchers felt this method was best suited because of its interpretive, reflective and profoundly exploratory nature, which allowed them to obtain relevant information. Interpretivism maintains that truth and reality are created and not discovered (Elliott & Timulak, 2021). The interpretivist approach allowed the research participants the opportunity to share their opinions and views of the research topic which would allow the researchers to gain a deeper comprehension of the participants' experiences

The researchers adopted a qualitative, multi-site exploratory design involving lecturers from three higher education institutions in South Africa. This enabled the researchers to explore shared and context-specific experiences across different institutional contexts. This approach made it possible to conduct a

thorough examination of the perceptions of lecturers employed in these higher education institutions in their various Colleges of Education. The choice of design was prompted by continued interest in the use of discussion forums for teaching and learning in higher education, enabling the researchers to obtain relevant insights.

This study is exploratory, seeking to gain an in-depth understanding of lecturers' perceptions and experiences of using online discussion forums and threads in higher education institutions. The aim is not to produce generalisable findings, but rather to identify patterns, insights and emerging themes that can inform future research. As such, the findings provide a foundation for further large-scale quantitative or mixed-methods studies on the use of online discussion forums in higher education.

**Sample**

The researchers chose a homogeneous, purposeful sampling technique to select a specific group of participants who were familiar with and had used discussion forums. They felt that this was applicable to this research as it would allow them to focus on a certain specific group of participants who shared similar central characteristics, which are relevant to the phenomenon being researched.

**The inclusion criteria applied in this instance were that participants had to be teaching modules at the HEI at that time and be using discussion forums for their teaching and learning.** The final sample comprised 50 lecturers drawn from three higher education institutions in South Africa. **All of them worked in various departments within the Colleges of Education, teaching subjects in the field of teacher education. The information of prospective participants was obtained from departmental heads' reports submitted to the College of Education's Teaching and Learning Committee and from the HEIs' intranet, which contained lists of staff profiles. Permission was granted by the institution for the lecturers to participate in this research. A letter outlining the purpose of this research was emailed to prospective participants, which explained the purpose of this study. Those who agreed to participate were required to provide informed consent before being included in the study. The selected lecturers taught various modules to students in different years of teacher education study. The lecturers chosen were all experienced professionals in their chosen fields and had extensive lecturing backgrounds and expertise in their respective fields (see Table 1 for the sample's demographics). By using a sample of 50 participants, the aim was to enable the researchers to obtain their specific perspectives on online discussion forums.**

**Table 1: Participant demographics**

| Participants | Gender | Age | Teaching experience (years) | Post level | Familiarity with discussion forums (scale: 1–5) | Participation in formal training regarding the use of discussion forums (Yes/No) |
|---|---|---|---|---|---|---|
| Participant 1 (P1) | F | 45 | 11 | Senior Lecturer | 3 | Yes |
| P2 | F | 39 | 8 | Lecturer | 3 | Yes |
| P3 | F | 41 | 9 | Lecturer | 3 | Yes |
| P4 | F | 60 | 20 | Senior Lecturer | 2 | Yes |
| P5 | M | 38 | 8 | Lecturer | 3 | Yes |
| P6 | F | 37 | 9 | Junior Lecturer | 3 | No |
| P7 | F | 62 | 23 | Prof | 2 | No |
| P8 | M | 56 | 11 | Senior Lecturer | 2 | Yes |
| P9 | F | 59 | 18 | Prof | 4 | Yes |
| P10 | F | 32 | 5 | Lecturer | 4 | Yes |
| P11 | M | 32 | 5 | Lecturer | 4 | No |
| P12 | F | 56 | 13 | Senior Lecturer | 2 | Yes |
| P13 | F | 40 | 10 | Senior Lecturer | 3 | Yes |
| P14 | F | 58 | 14 | Senior Lecturer | 3 | No |
| P15 | F | 63 | 22 | Prof | 3 | Yes |
| P16 | F | 30 | 5 | Lecturer | 2 | Yes |
| P17 | F | 35 | 10 | Senior Lecturer | 3 | Yes |
| P18 | F | 29 | 3 | Lecturer | 3 | Yes |
| P19 | F | 48 | 3 | Lecturer | 3 | Yes |
| P20 | F | 35 | 3 | Senior Lecturer | 3 | Yes |
| P21 | F | 29 | 4 | Lecturer | 3 | Yes |
| P22 | F | 26 | 2 | Junior | 3 | Yes |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | Lecturer | | |
| P23 | F | 49 | 3 | Lecturer | 3 | Yes |
| P24 | F | 29 | 3 | Lecturer | 3 | Yes |
| P25 | F | 35 | 3 | Lecturer | 3 | Yes |
| P26 | F | 29 | 3 | Lecturer | 3 | Yes |
| P27 | F | 52 | 3 | Senior Lecturer | 3 | Yes |
| P28 | F | 29 | 3 | Lecturer | 3 | Yes |
| P29 | F | 37 | 3 | Lecturer | 3 | Yes |
| P30 | F | 39 | 3 | Lecturer | 3 | Yes |
| P31 | F | 59 | 27 | Prof | 4 | Yes |
| P32 | F | 32 | 5 | Lecturer | 4 | Yes |
| P33 | M | 28 | 3 | Junior Lecturer | 4 | No |
| P34 | F | 56 | 13 | Senior Lecturer | 2 | Yes |
| P35 | F | 58 | 14 | Senior Lecturer | 3 | No |
| P36 | F | 59 | 20 | Prof | 4 | Yes |
| P37 | F | 35 | 8 | Lecturer | 4 | Yes |
| P38 | M | 32 | 5 | Lecturer | 2 | No |
| P39 | M | 38 | 2 | Lecturer | 3 | No |
| P40 | M | 41 | 6 | Lecturer | 5 | Yes |
| P41 | M | 55 | 5 | Lecturer | 3 | No |
| P42 | M | 29 | 1 | Lecturer | 3 | Yes |
| P43 | M | 32 | 5 | Senior Lecturer | 4 | Yes |
| P44 | M | 32 | 5 | Lecturer | 2 | No |
| P45 | M | 57 | 25 | Prof | 4 | Yes |
| P46 | M | 48 | 10 | Lecturer | 3 | Yes |
| P47 | M | 34 | 4 | Lecturer | 4 | Yes |

| | | | | | | |
|---|---|---|---|---|---|---|
| P48 | M | 42 | 11 | Senior Lecturer | 5 | No |
| P49 | M | 32 | 3 | Lecturer | 4 | Yes |
| P50 | M | 36 | 6 | Lecturer | 4 | No |

*Note: F = Female; M = Male. Familiarity scale ranges from 1 (low) to 5 (high).*

**Data-Collection Instruments**

The participating lecturers participated in semi-structured focus group interviews. The questions were designed by researchers to obtain relevant data and to answer the research questions. One of the participating lecturers analysed the questions to be asked in the interviews and provided feedback on their relevance and coherence. Based on this feedback, a few of the original questions were adapted. A total of nine focus group interviews were conducted. The interviews lasted approximately 45–60 minutes. These were conducted in small groups of 4–6 participants at a time, which was suitable for the participants. The group size of 4–6 participants was considered suitable, as it ensured that all participants had an opportunity to contribute while still allowing for meaningful discussion. Conducting multiple focus groups further enhanced the depth and diversity of perspectives. The use of focus group interviews was appropriate for this study, as it enabled participants to interact, share experiences, and build on each other's responses. This allowed for richer data compared to individual interviews. Microsoft Teams, developed by Microsoft as part of its suite of productivity and collaboration tools, was successfully used to conduct these interviews. Microsoft Teams is a digital communication platform that can be used for video conferencing, real-time interaction, instant messaging and the sharing of documents.

The researchers also used qualitative document analysis, which involved analysing discussion thread prompts, student participation in threads and lecturer responses. This aided the research in gauging the participants' perceptions of discussion forums.The documents scrutinised included module outlines, discussion thread prompts, participation, and posts from students and lecturers. Detailed notes were recorded regarding the above to identify recurring patterns or notable examples.

By using the above data-collection instruments, relevant and appropriate information was collected, which provided the researchers with deep insights in order to answer the research questions. Data collection continued until thematic saturation was reached. This meant that no new themes or insights emerged from the discussions and indicated that sufficient depth and coverage of the lecturers' perceptions had been achieved.

**Data Analysis**

The research used an inductive approach of thematic analysis to evaluate all the information from the focus group interviews and document analysis. The six phases of thematic analysis of Braun and

Clarke's (2006) were used to guide this process. The researchers first had to familiarise themselves with the information obtained. The researchers achieved this by reading the transcriptions of the Teams recording and the detailed notes that were generated from the participants' responses a few times. The researchers' notes that were written during the document analysis were also reviewed. This allowed the researchers to obtain a detailed understanding of the raw data.

The initial codes were then identified manually. The information was then sorted so that relevant information could be grouped and methodically coded. Next, initial codes were generated manually, without computer software. In this way, the main themes regarding the lecturers' use and views of discussion forums were highlighted. These themes were reviewed, refined and clearly defined so that they aligned with and could answer the formulated research questions. The researchers noted that similar themes emerged across all the focus groups. This indicated that further interviews would not assist in revealing any new insights. As such, the collected data were sufficient to answer the research questions successfully. This allowed for the process to be comprehensive and thorough.

Data collection was conducted in stages. This meant that ideas from earlier focus groups helped guide the subsequent discussions. The researchers continuously reviewed the data to determine when enough information had been collected. The researchers realised that when no new themes or insights emerged and responses became repetitive, data saturation was reached. This indicated that the data were sufficient to answer the research questions comprehensively. This is a common approach in qualitative research to ensure that the data are detailed and sufficient.

**Trustworthiness**

The researchers used numerous methods to enhance the trustworthiness and credibility of the researcher. The first was member checking (also often termed "respondent validation"). The participants were asked to review and comment on the accuracy and the researchers' interpretations of their particular responses. This helped to confirm the credibility of the information captured by the research.

To triangulate the data, the researchers used two methods of data collection, focus group interviews and document analysis. This allowed the researchers to compare and validate the information obtained, thereby ensuring the dependability and confirmability of the findings.

The researchers also used peer debriefing, which they felt would be useful for this research, especially considering that manual coding was used. An experienced academic carefully analysed some of the coded data to ensure that the data did not contain any researcher bias and was consistent. This also helped to ensure the trustworthiness of this research.

Finally, throughout the research, the researchers carefully kept a detailed and thorough record of the whole coding process. Notes were also kept on how the various themes emerged and how their researchers decided to code and develop them. Finally, the researchers' personal reflections were also

documented. This enhanced the transparency and trustworthiness of the research. This aligns with the suggested audit trail outlined by Ahmed (2024).

### Ethics

Ethical standards were adhered to throughout the research process. Ethical approval for all the research projects was granted by the University of South Africa's College of Education Research Ethics Committee (CEDU REC). This approval authorised the department to undertake research in schools involving teachers and/or learners as participants. The researcher undertook to comply with all the conditions stipulated in the ethical clearance and to notify the committee should any ethical concerns arise during the course of the study. The researchers also guaranteed that their confidentiality and anonymity would be protected, as only pseudonyms would be used and no personal information would be reported in the findings. It was also carefully explained to the participants that participation was voluntary, and they could withdraw from the research at any time, without any consequences.

### Consent to Participate and Publish

In line with the committee's ethical requirements, participants provided informed consent to take part in the study and agreed to the publication of the findings. Informed consent was requested from all participants.

The next section discusses the research findings, focusing on key themes derived from the data the researchers collected.

## Research Findings

The findings from focus group interviews with the lecturers who used online discussion forums in their teacher education modules are reported in this section. The document analysis undertaken by the researchers is also discussed below. The section below is aligned with the research questions developed for this study.

### 1. Design and Facilitation of Online Discussion Forums

Most lecturers reported that discussion forums were integrated into their modules, which helped promote interaction and collaborative learning. The discussion thread prompts were linked to the weekly lecturer topics. P35 mentioned:

*“I usually add discussion forum posts that ask students about what we are learning and how it can actually be practically used in their classrooms. That way, we are not just learning about the actual theory but seeing how it works in the real day-to-day classroom.”*

P21 made reference to the fact that if discussion forums were going to be relevant to the students, they had to be very carefully designed. They also have to be monitored all the time. In her words:

**“You can’t just set up a discussion forum and leave it and that is it – you have to watch it closely and make sure that students do not lose interest or get confused”.**

P41 agreed with the above by stating:

*“Students need very clear instructions and guidelines, otherwise they just don’t post correctly, learn and benefit from the forum”*

P12 concurred with the above and added:

*“Somehow, I have to try and think of ways that those students who are not posting realise it is a fun learning experience and nothing to be shy about. When I start to respond to the students’ posts, I always thank the students for their posts. I do feel that this helps make them feel that their posts are important and appreciated. I also add a small positive comment and generally an emoji. It just shows the students that I am actually there and reading their posts”*

Finally, P29 explained:

*“I call my discussion forums ‘thinking stops’. I always add a stop sign picture to them. This is in red. I know this helps students to stop for a minute, as it catches their eye.”*

The document analysis that was undertaken revealed to the researchers that detailed guidelines were clearly explained by the module lecturers. These guidelines explained clearly what the lecturers expected from the students. The dates by which they must complete their response were also outlined. It was also noticed that there were links in the online learning content of the module site to the discussion forums. This made it easy for the students to just click on the hyperlink which would immediately open up the actual discussion forum. However, the document analysis also showed a discrepancy in lecturer involvement. In some modules that were viewed, lecturers were very active and posted almost daily, while in others, it was minimal or even nothing at all.

**2. Advantages of Using Discussion Forums**

The participants interviewed agreed that online forums provide an effective platform for collaboration, reflection and assisting in constructing of new knowledge.

P10 was of the view that:

*“Some students are really shy in face-to-face big lecture halls (or even smaller tutor groups), but on the discussion forums, they seem happy to share their views and respond.”*

P13 agreed and added:

*“Students somehow manage to find themselves and their voices”.*

P2 correctly added the idea of critical thinking:

*"I've seen students discuss the questions with their fellow students. Sometimes they question their ideas or even revise their own. It definitely shows that a certain amount of critical thinking is going on."*

P5 discussed the usefulness of discussion forums for assessing and lecturers' monitoring of students' progress. In her words:

*"By reading their posts, I can see who's actually understanding the content of the course and, of course, who needs more help. It gives me a really excellent idea of each student."*

From the document analysis, the researchers noted that the prompts of the discussion threads often asked students to explain what they felt about the specific learning content and also to give examples from their own practical teaching experience. This made it easy for lecturers to see who really understood the topic, who might need extension activities or additional support and what areas needed more attention. In other words, the forums helped lecturers keep track of students' learning and check their understanding.

**3. Challenges in Using Discussion Forums**

Despite the benefits, several challenges emerged from the lecturers' comments and from the module sites that the researchers evaluated. A main concern was the irregular participation among students. P6 stated:

*"A few students are always active, but others just post once to meet requirements or even not at all. It's hard to keep up the discussions with these students."*

The document analysis undertaken by the researchers confirmed this concern as often most of the responses on the discussion forums came from a relatively small group of students, while many only contributed occasionally.

Lecturers also spoke about time constraints in moderating and assessing the posts of the students on these discussion forums and giving meaningful feedback. P23 noted:

*"It takes hours to read through every post and respond meaningfully. It's rewarding but very extremely time-consuming, time we just don't have."*

P48 concurred and explained:

*"It becomes so difficult, if not actually impossible to manage when I have so many students, sometimes over 2000 posting at the same time. It's hard to give meaningful feedback."*

Technological barriers, particularly in rural areas, were another theme that the participants discussed. Participant 5 indicated.

*“Some students just don’t have internet access or internet access that is not reliable, so they miss out on the discussions.”*

To overcome this, a few lecturers allowed their students to submit written reflections and even send their responses through email or WhatsApp when they could not go online. Some even allow students to hand them in during contact sessions. This was clearly noted in the document analysis, where several modules included messages about alternative submission options that students could use.

Finally, the participants further expressed the problem that some students viewed the discussion forums just as something that they had to complete:

P25 suggested

*“You can easily tell when students post just to tick the box - it lacks careful thinking and even at times does not answer the discussion prompt.”*

P7 went on to add:

*“….. and you can tell they’re just trying to post something for the sake of it and not really interested in the content - short, rushed comments.”*

The next section discusses the results of this research, in which the above research findings are correlated with the literature review, with a view to answering the research questions.

# Discussion of Results

The following section discusses the research results, in which the research findings are correlated with the literature review. The section is arranged according to the main themes that were selected for this research.

**Design and Facilitation of Online Discussion Forums**

The findings of this study showed the central role of discussion forums in ensuring collaboration and critical thinking among student teachers. This aligns very closely with the three principles of the Engagement Theory (Kearsley & Shneiderman, 1998): relate, create and donate. Many of the participants, particularly P35, felt that it was essential that discussion forums were practically based and related to the weekly learning. This resonates very closely with the Engagement Theory’s emphasis on the framework’s focus on collaborative and meaningful engagement, which enhances learning experiences by encouraging students to relate the content to their day-to-day practical experiences and also to actively contribute and reflect on the content of the discussion forums.

**Advantages of Using Discussion Forums**

The literature consulted for this research (Aderibigbe, 2021; Moore & MIller, 2022) suggests that online discussion environments can support student participation, engagement and the development of confidence, particularly for those who may feel marginalised in traditional classrooms. This was corroborated by both P10 and P13. These lecturers explained that students who are hesitant to speak in face-to-face settings often appear more willing to express their ideas in such spaces as online discussion forums. Similarly, P2 noted that the discussion forums allowed students to explore and articulate their thinking, which enabled them to find their "voice" in the learning process. This aligns with the "relate" principle of the Engagement Theory, as clearly students engaged in meaningful interaction with peers, which results in collaborative learning and ensures a social presence.

In addition, P2 emphasised the role of discussion forums in promoting critical engagement. Essa's (2021) findings echoed this same sentiment as his research found that when students interacted with their peers, reflective and analytical thinking was encouraged, which are essential competencies in higher education. Thus, when students construct and share ideas, it aligns with the "create" principle of the Engagement Theory. This principle highlights that active and purposeful knowledge is constructed when students are engaged in real tasks.

P5 highlighted that the discussion forums also function as an effective means of formative assessment, as by reading students' posts, lecturers could see who was grasping the content and who required additional support. The researchers noted from the detailed notes of their document analysis that the discussion prompts designed by the lecturers encouraged students to relate the theoretical concepts taught in the lesson to their own actual practical teaching experiences and share insights with peers. This reflects the "donate" principle of Engagement Theory, as the learners were actively contributing to their knowledge on online platforms. In this way, the discussion forums enabled ongoing monitoring of students' attainment of the lesson outcomes. Lecturers were also well positioned to provide timely intervention for those students who required additional support and to as those who required enrichment. This aligns with Aderibigbe's (2021) findings that online discussion spaces serve as valuable tools for students to obtain constant feedback.

**Challenges in Using Discussion Forums**

However, the research also revealed significant challenges, such as irregular participation by the students. Interestingly, at times, it was not only students but also lecturers who did not participate actively. The document analysis also revealed that in some modules, lecturers actively posted feedback and summaries, while in others, their input was minimal. This inconsistency mirrors findings by Moore and Miller (2022) that low lecturer presence can weaken interaction and the success of the discussion forums for teaching and learning. This relates particularly to the relate component of the Engagement Theory, which emphasises the necessity of continued social presence in ensuring meaningful participation.

It was also found that lecturers had to be adaptable and use other means as well. Specifically, P5 felt the need to use different strategies for those students who experienced technological challenges. The ideas

mentioned included allowing students to use email or WhatsApp to send their responses and reflections. This is consistent with the literature consulted (Essa, 2021), which referred to the importance of being aware of the fact that digital inequalities in higher education exist when designing discussion forum prompts. These challenges show that discussion forums have to be designed carefully, ensuring that the activities are inclusive and accessible. This reflects the create and donate principles of the Engagement Theory, which emphasises the importance of ideas being constructed and shared collaboratively, which will contribute meaningfully to shared learning. This echoes the insights of the literature consulted (Aderibigbe et al., 2021; Essa, 2021; Moore & Miller, 2022) and is consistent with P21, who mentioned the same points.

**Limitations**

The following are certain limitations identified for this research on the use of discussion forums in higher education. Although the study included participants from three higher education institutions, it was limited to specific faculties within these institutions. As such, the findings may not fully represent all higher education contexts. The long-term impact of participation in discussion forums on students' attainment of the learning outcomes and collaborative engagement may only become evident in years to come, as they progress through their studies and even enter their chosen professions. Finally, digital literacy differences occur amongst students and lecturers. The digital disparities that exist among students and lecturers may influence the implementation and also the ongoing engagement and effectiveness of discussion forums across higher education contexts.

# CONCLUSION AND RECOMMENDATIONS

This paper discussed the role of online discussion forums in supporting teaching and learning across higher education contexts. It was based on the perceptions of lecturers from three higher education institutions, within Colleges of Education and related departments. Their insights drew on their familiarity with, experiences of, and involvement in using discussion forums as part of their module delivery. This enabled them to answer the questions asked in the focus group interviews regarding their perceived advantages and challenges of the discussion forums implemented for their module. It also enabled them to comment on the supportive measures required for discussion forums to function effectively. The use of two popular data collection instruments, namely focus group interviews and document analysis, enabled the researchers to correlate what the lecturers reported in actual teaching and learning practices with what emerged from the literature reviewed.

The researchers chose the Engagement Theory, to guide this research, especially considering its principles of relate, create, and donate, which highlight the importance of meaningful, relevant engagement and collaborative teaching and learning. This framework enabled the researchers to investigate the views on discussion forums in teaching and learning.

The findings highlight that, when designed and used effectively, discussion forums, when supported by well-designed discussion threads, have the potential to encourage deeper engagement, peer learning

and critical reflection. However, the study also identified challenges such as inconsistent participation, varying lecturer presence, and limited digital competencies among both staff and students. By including lecturers from three higher education institutions, this study provides broader insight into the use of discussion forums across different institutional contexts, thereby enhancing the transferability of the findings. The findings of this exploratory study should be viewed as specific insights that enhance our understanding of online discussion forums in teacher education, rather than as widely applicable conclusions. The study therefore contributes to the growing body of knowledge in this area by examining lecturers' perspectives across multiple institutional contexts and highlighting how discussion forums are used in authentic teaching environments. Its significance lies in highlighting how lecturers experience and use discussion forums in their actual teaching contexts. It has relevance for institutions using or planning to use discussion forums for their teaching and learning.

### Recommendations for Further Research

Future research should explore students' perceptions of the discussion forums, particularly their views on what helps or prevents meaningful participation. Research could also examine the perceptions of lecturers in other departments or faculties regarding discussion forums, in order to determine whether similar views are expressed across the institution. Future research should examine the training lecturers receive for using online discussion forums and threads. In particular, studies could examine how differences in the content and type of training influence how lecturers actually design, facilitate and assess online discussions in their modules. This could lead to improvements in professional development and support more effective use of discussion forums in teaching and learning. Longitudinal studies that track student engagement in discussion forums and their academic performance would help understand the value of discussion forums. Finally, comparative research that investigates different HEIs, both within South Africa and internationally, would help determine those factors that lead to the success or failure of discussion forum use in higher education institutions.

## Declarations

### DATA AVAILABILITY

As a result of the confidentiality of the data collected and to protect the participant's views, it has been decided that the data will only be available on reasonable request.


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I wish to acknowledge the cooperation of the lecturers who participated in the data collection process and higher education institution for granting us permission to complete this research.


### ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The research was ethically approved by the ethics review committee of Unisa's College of Education Research Ethics Committee (CEDU REC). The study was conducted in accordance with the guidelines

governing research involving human participants, as outlined by this review committee.

**FUNDING**

Not applicable as no funding was obtained for this study.

**DISCLOSURE STATEMENT**

The author declares that she has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. The research was conducted independently and objectively, and the author has no affiliations that could be perceived as potential conflicts of interest.

**CLINICAL TRIAL NUMBER**:

Not applicable.

**CONSENT TO PUBLISH**

All participants consented to the publication of this manuscript in *Discover Education*. The author confirms that the manuscript is original, has not been published elsewhere in any form, and is not currently under consideration by another journal.

**CONSENT TO PARTICIPATE**

Written informed consent was obtained from all participants prior to their involvement in the study. Participants were provided with information regarding the purpose of the research, the procedures involved, the voluntary nature of participation, their right to withdraw from the study at any stage without any negative consequences, and the measures taken to ensure confidentiality and anonymity. Only participants who voluntarily agreed to participate and signed the informed consent forms were included in the study.

# Author Contribution

DS and SM collaborated throughout the study. DS took primary responsibility for framing the literature review and drafting the initial review, while SM strengthened the review with additional sources and refined the focus. In the data collection phase, DS designed the instruments and coordinated participant engagement. Both DS and SM carried out most of the fieldwork. Both authors contributed to data analysis. In this regard, DS concentrated on coding and theme development, while SM focused on assisting in interpreting findings in relation to existing literature. The manuscript was revised jointly, and both authors reviewed and approved the final version, taking responsibility for the integrity of the work.

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