

Bridging Gaps in Open Distance e-Learning: Applying Moore's Transactional Distance Theory to Support Early Childhood Care and Education Students

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Abstract

Open distance e-learning (ODEL) provides students who hold multiple roles and are affected by barriers such as distance, cost, and time with an opportunity to pursue their studies; these students are called distance students. In ODeL, the separation between the teacher and students can lead to communication gaps, a psychological space of potential misunderstandings between the behaviours of teachers and those of the students, called transactional distance. This paper explored how the transactional distance theory is used to support early childhood care and education (ECCE) students in ODeL. The study was conducted in one private higher education institution (PHEI) that offers qualifications in ODeL in the Gauteng province, South Africa. Adopting the interpretivism paradigm, the study is grounded in Moore's theory of transactional distance as a theoretical lens. A purposive sampling strategy was used to target ECCE lecturers in the PHEI. A qualitative methodology was employed, with semi-structured interviews as the primary data collection method. Interviews allowed for an in-depth exploration of the participants' perspectives and experiences in terms of supporting students in the ODeL context. A multiple case study design was adopted to provide a holistic understanding of student support in the ODeL. Thematic analysis was used to make sense of the data collected through semi-structured interviews. The findings indicate that the participants applied Moore's transactional distance theory by using the Canvas learning management system to initiate communication with students and by designing less structured courses to decrease the transactional distance.

Keywords: open distance e-learning; early childhood care; early childhood education



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Introduction and Background

Open distance e-learning (ODEL) has gained popularity in the South African higher education sector in recent times. This mode of learning has grown dramatically, especially after the mid-1990s, when online courses became increasingly popular because of ever-improving technology (Zongozzi 2021). ODeL is a form of education that occurs when students, teachers, and resources are not in the same physical environment but interact with each other digitally either synchronously or asynchronously. ODeL can be seen as a strong alternative to formal education in compulsory situations or when geographical distances may prevent education. Through ODeL, the South African department of education aims to promote social justice by concentrating on correcting past inequalities, ensuring that there is fairness while empowering groups that were previously disadvantaged. Ntshoe (2011) suggests that these groups comprise blacks, women, people with disabilities, as well as rural and urban poor adults who previously did not have access to higher education. Akintolu and Letsaka (2023) further argue that the advantage of ODeL is that it provides various choices for universities as students can decide to further their studies with any university of their choice, regardless of the distance. Studying through ODeL may also be cost-effective as students do not need to travel or move closer to their university. Furthermore, ODeL provides students with flexibility because they can work and look after their families while studying.

Owing to the benefits of ODeL, many students are choosing this model to pursue their different education programmes, including the early childhood care and education (ECCE) programmes in both private and public universities. This study focused on applying Moore's transactional distance theory to support students who are studying towards obtaining their higher certificate in pre-school education in the ECCE department at a private university. Research on private higher education institutions (PHEIs) in South Africa is minimal (Davids 2022), and this study contributes to the paucity of literature related to ODeL in PHEIs in South Africa. This cohort of students are usually those that passed their matric with a higher certificate and so cannot study towards their bachelor of education in the foundation phase or intermediate phase, National Qualification Framework (NQF) level 6. Therefore, these students are enrolled in NQF level 5 higher certificate in pre-school education programmes. Once they have successfully passed the higher certificate in pre-school education, they may continue their studies towards the bachelor of education in foundation phase teaching or the bachelor of education in intermediate phase teaching qualification. However, they will have to complete a bridging year, after which they will continue with their second year of studies in the bachelor of education in foundation phase teaching or the bachelor of education in intermediate phase teaching qualification. This higher certificate in pre-school course attracts many students per semester and its purpose is to train students on how to care for young children aged 0–4 years old. It is highly concerning that many students in this higher certificate in pre-school education course are failing from semester to semester. It is argued that students in this programme will need extra

academic support because of their matric results. Lecturers need to understand how to apply theories like Moore's theory of transactional distance in their teaching to support such students. This theory offers clear frameworks that lecturers can follow to minimise the transactional distance between themselves and their students, thereby providing better support for student learning.

Since these students are not in the same physical environment with their peers and lecturers in the ODeL environment, this can lead to communication gaps, a psychological space of potential misunderstandings between the behaviours of lecturers and those of the students which Moore (1997) called "transactional distance." As a result, students may feel lonely because of the limited opportunity to interact with their classmates and lecturers in ODeL (Özbey and Kayri 2023). Furthermore, the motivation and sense of commitment of the learner may decrease with the increase in transactional distance, which is a negative effect of this model.

Moore's transactional distance theory provides a framework for understanding and addressing this challenge by reducing the transactional distance that exists between the student and the lecturer. This theory emphasises that the nature of the transaction developed between lecturers and students in distance learning needs to consider three factors: dialogue, structure, and learner autonomy in mitigating the transactional distance (Moore 1997). Applying Moore's transactional distance theory to support higher certificate in pre-school students with their academics presents a promising avenue for bridging the transactional distance and enhancing educational outcomes. By fostering a sense of community, promoting active engagement, and leveraging appropriate pedagogical strategies, lecturers can create a supportive ODeL environment conducive to effective learning and development. This study explored the application of Moore's transactional distance theory in the context of ODeL, with a specific focus on supporting higher certificate in pre-school students. Through an examination of relevant literature, case studies, and practical strategies, we aimed to elucidate the challenges posed by transactional distance and propose actionable recommendations for promoting student success and satisfaction in online ECCE programmes. Moreover, the study offers strategies that can be employed by those involved in ODeL, such as utilising digital tools to access education.

Problem Statement

The ECCE field is significant for laying the foundation of a child's lifelong learning and holistic development (Mathews 2021). However, despite the increasing emphasis on the importance of ECCE, there exist significant gaps in the effective support provided to students who are studying towards the higher certificate in pre-school education, particularly in ODeL environments. Higher certificate in pre-school education students need extra academic support owing to their low matric results to survive at university. Since these students and their lecturers are not in the same space in the ODeL environment, the students' sense of commitment may decrease with the increase in

transactional distance (Özbey and Kayri 2023). The increase in transactional distance may create deficiencies in these students' academic journeys in the ODeL space.

This study aimed to address challenges caused by the transactional distance that exists among higher certificate students and their lecturers in the ODeL environment. This will be achieved by applying Moore's transactional distance theory. According to Falloon (2011), this theory proposes that effective learning environments must manage the interplay of structure, dialogue, and learner autonomy to reduce the transactional distance. Consequently, understanding and implementing strategies informed by the transactional distance theory in ODeL may enhance the overall learning experience for higher certificate in pre-school students, leading to improved educational outcomes and better-prepared ECCE practitioners. To achieve this purpose, the following research questions were posed:

- How do ECCE lecturers use communication to reduce transactional distance in ODeL?
- How do ECCE lecturers structure teaching and learning to reduce transactional distance in ODeL?

Literature Review

Theoretical Framework

This research is underpinned by Michael Moore's transactional distance theory, which includes dialogue, transactional distance, and student autonomy. This theory has been widely applied in many similar studies involving ODeL students (Batita and Chen 2022; Kara 2021). This theory postulates that distance education is not simply a geographic separation of students and teachers, but a concept describing the universe of teacher-learner relationships that exist when students and teachers are separated by space or by time, such as in this study (Moore 1997). Moore notes that this universe of relationships can be ordered into a typology shaped around the most elementary constructs of the field, namely dialogue, course structure, and the nature and degree of self-directness of the learner.

This theory emphasises the concept of dialogue and highlights that dialogue is developed by teachers and students during the interactions that exist when one gives instruction and the others respond. According to Moore (1997), dialogue refers to an interaction or series of interactions having positive qualities that other interactions might not have. A dialogue is purposeful, constructive, and valued by each party. Each party in a dialogue is a respectful and active listener; each is a contributor and builds on the contributions of the other party or parties. There can be negative or neutral interactions; the term "dialogue" is reserved for positive interactions, with value placed on the synergistic nature of the relationship of the parties involved. The direction of the dialogue in an educational relationship is towards the improved understanding of the

student. Dialogue is very important in this study to provide support to higher certificate students studying through ODeL. The quality of dialogue that the lecturer should initiate must solve these students' problems. It is also worth noting that the nature of communication used by lecturers will have a direct impact on the extent and quality of dialogue between students and their peers. To achieve this, lecturers can utilise effective communication tools as they are regarded as vital for connecting both students and their lecturers in ODeL.

The second factor from this theory is the nature of the course structure, which Falloon (2011, 190) described as

the level of the course's rigidity or flexibility. This factor includes aspects such as the extent to which objectives are pre-prescribed, the pedagogical model used in teaching the course (e.g., teacher- vs. student-centred), the nature of course assessment, and the ability of the course to accommodate individual student needs.

Furthermore, course structure describes the extent to which an education programme can accommodate or be responsive to each learner's individual needs in a course such as ECCE. To ensure that the course structure is flexible, lecturers should provide scaffolding by dividing information into smaller chunks or units, each focusing on specific topics or learning objectives. These objectives should be communicated to the students so that they clearly understand what is expected from them (Falloon 2011). The use of various multimedia resources such as videos, texts, and interactive simulations offers different learning styles that will keep students engaged and accommodated. As with any other teaching and learning process, assessment and prompt feedback is important. Lecturers should provide different forms of assessment and provide prompt feedback to assist students in understanding their strengths and weaknesses, which will in turn, lead to continuous learning. All these elements of course structure could be used by ECCE lecturers during the teaching and learning process to support students and thus reduce the transactional distance.

The third factor in this theory is learner autonomy, which refers to learners' feelings of dependence or interdependence as they interact with the course (Falloon 2011). This factor is dependent on the previous two in such a way that when lecturers design courses that are too rigid, this may result in a decrease in quality dialogue, as Moore (1997) puts it. As a result, students' perception of the transactional distance will be increased, leading to students feeling demotivated. To avoid this, lecturers should support students through quality dialogue and design courses that are flexible, leading to students feeling more autonomous, with transactional distance being decreased. It is worth noting that ODeL lecturers should provide academic support to students through quality dialogues that solve students' academic challenges.

Figure 1 below shows that the more structure and less dialogue a lecturer exhibits, the greater the students' autonomy would be; this results in a higher transactional distance

between the students, their lecturers, and their learning. Therefore, it is the lecturers' responsibility to reduce this transactional distance, as Kara (2021) puts it.

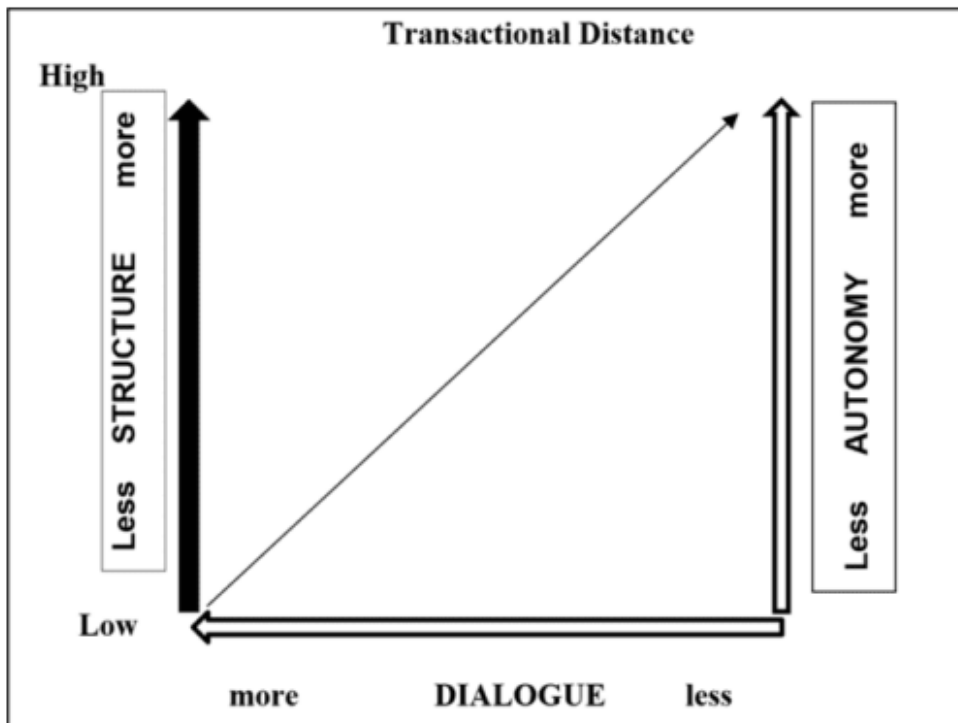


Figure 1: Relationship between structure, dialogue and transactional distance. Source: Sevnanarayan (2022, 425)

The Concept of Open Distance E-Learning

ODEL refers to the offering of education through technologies such as the internet that separates students in time and place. ODeL has grown recently because of technological advancements, cost-effectiveness, flexibility, personalised learning and worldwide reach (Chauke and Dlamini 2024). ODeL has also gained in popularity since the COVID-19 pandemic. Traditional face-to-face institutions had to seek alternative ways of offering education amid the pandemic, and going online was the only way, as COVID-19 measures meant there could be no face-to-face contact to contain the spread of the virus (Bashir et al. 2021). Furthermore, Chauke and Dlamini (2024) add that the lessons learnt in online learning during the COVID-19 pandemic should contribute to teaching, learning, and assessments in institutions of higher learning. ODeL institutions, like many others, have challenges that include students' poor academic performance, which results in low throughput rates. Such a challenge is bound to take place in ODeL institutions because there is usually a lack of student support from the lecturers.

Challenges of ODeL

ODeL offers several benefits and is a much more viable option (Schreiber and Jansz 2019) than traditional face-to-face universities. For instance, a study conducted in a Kenyan ODeL university found that the students complained about the lack of synchronous interactive capabilities that are the trademark of learner-tutor and learner-learner interaction (Kibuku et al. 2020). Furthermore, students reported that the programmes were content-heavy, failing to accommodate various students' capabilities and learning styles. As stated in Moore's transactional distance theory, a lack of interaction/communication and the absence of flexible course content that does not cater to different students will lead to transactional distance (Moore 1997).

A similar study was conducted by Kisara and Bwalya (2022) in Namibia investigating the e-learning challenges faced by students during COVID-19. The results highlighted that the learning management system (LMS) used, Moodle, was challenging for students to navigate. Students also expressed a feeling of isolation, which is consistent with some arguments made by Kibuku et al. (2020). In ODeL, students spend inordinate amounts of time interacting with content, and where there are areas of misunderstanding, they need lecturers to help resolve their specific issues; however, this seems to be a challenge in ODeL (Mashile et al. 2020). Instruction in ODeL is conducted differently by various institutions. In the Open University United Kingdom, academics develop the study materials and do not interact with students, while tutors are responsible for facilitating students' learning (Goold et al. 2010). This system is similar to that at Athabasca University in Canada (Ives and Pringle 2013).

In South African institutions such as the University of South Africa (Unisa), academics develop the study material and lead teaching and learning activities. E-tutors supplement the academics' activities by facilitating learning in smaller groups of students (Mashile and Matoane, 2020). The availability of tutors to deal with specific aspects of a course is critical since it provides a mechanism to mediate learning. The lack of lecturer or tutor availability for interaction with students could thus be a barrier to their learning and contribute towards increased transactional distance.

Student Support in ODeL Institutions

To ensure that ODeL students have enduring learning experiences and success, Majaule and Kasozi (2023) suggest that ODeL institutions should have a practical and effective student support system in place. Majaule and Kasozi's (2023) findings further revealed that these student support services include academic, psycho-social, technical, and administrative support. This type of support leads to students feeling confident about their academics and more autonomous. Students in the ODeL environment need more support than those who are studying through contact because of the transactional distance that exists between them, their peers, and their lecturers (Kara 2020).

Unisa is one of the oldest and largest universities in Africa. It caters for students from diverse socio-economic and linguistic backgrounds through an ODeL model (Sevnarayan 2022). As one of the leading universities in Africa offering courses through ODeL, lessons of student support can be learned from Unisa. “As an ODeL institution, Unisa has embraced the use of e-tutoring as a new approach to online teaching and learning, which may enhance student interaction and, consequently, performance” (Maré and Mutezo 2021, 165). In 2013, the university launched an integrated e-tutor model as a form of student support, acknowledging that distance learning can be an isolating academic journey. E-tutoring is meant to enhance student success, decrease student dropout, enhance qualification completion rates, and enhance lifelong learning (Maré and Mutezo 2020). E-tutors at Unisa are responsible for providing academic and technical support to students, facilitating online discussion forums, monitoring students’ progress and sharing study materials such as tutorials and online workshops to assist students do well in the module (Enwereji et al. 2024). E-tutoring can take place both synchronously and asynchronously on the myUnisa platform. Students have the opportunity to post messages and receive instant feedback from their peers or e-tutors in the discussion forum. Scholars such as Maré and Mutezo (2020) believe that the e-tutoring programme has the potential to contribute positively towards students’ autonomy, collaborative learning as well as communication skills. This method aims to reduce transactional distance by fostering a social environment that creates a student-friendly online space for interactive learning, alleviating feelings of isolation and lack of motivation.

Similarly, Botswana Open University (BOU) as an ODeL institution strives to provide support to students. According to Majaule and Ksozi (2023), learning is at its best when there is a dialogue between at least two people, as the transactional distance theory posits. BOU creates this dialogue between students through the telephone, with a tutor and a group of students through a tele-conferencing facility, or online discussion forums or chats. This guided learning promotes a personal relationship between the tutor and the student, thus creating greater student motivation, leading to reduced transactional distance (Sembiring 2020). This support programme at BOU, just like e-tutoring support at Unisa, acknowledges that ODeL students also need to engage and collaborate with their peers, like those in full-time face-to-face environments. Despite the existing literature on student support services, their importance, contribution, and benefits in ODeL, there is a dearth of literature on how Moore’s transactional distance theory can be used to support ECCE students, which is the reason for the significance of this study.

The Use of Technology to Support ECCE Students

There has been a lot of emphasis on technology as a driver of ODeL (Lumadi 2021). However, technology support systems have been criticised and frequently considered inadequate in preparing students for success (Nsamba and Makoe 2017). The presence of technology alone will not determine students’ academic success. ICT tools used by lecturers in ODeL should lead to social interaction and quality of dialogue between lecturers and students, as Moore (1997) suggests. ODeL institutions often use a blended

approach to teaching and learning, such as synchronous and asynchronous sessions. McClure and Williams (2021) suggest that students prefer synchronous learning over asynchronous learning. However, Sevnarayan (2022) argued that asynchronous learning enhances students' flexibility and autonomy towards their academics.

“Gather.Town (GT) is a synchronous video conferencing software that offers students the ability to move freely in a designed space where users can access ‘private rooms’ and engage with shared documents and files” (Sevnarayan 2022, 424). This aligns with McClure and Williams (2021), who suggested that students preferred this synchronous digital tool over Microsoft Teams because it provides for informal, effective communication among students, contributing to their self-paced learning and social interaction. Furthermore, ODeL lecturers should ensure that their online presence is felt by their students when using these technologies, such as by giving prompt responses and turning on cameras during a video conferencing session. This consistent act could reduce transactional distance between lecturers and students while increasing their confidence. Recently, Sevnarayan (2022) noted that the use of an LMS such as Moodle can reduce the transactional distance using collaborative tools, such as discussion forums.

Research Design and Methodology

This research followed a multiple case study research design. A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when boundaries between phenomenon and context are not clear (Yin 2009). The case study design enabled the researcher to interview ECCE lecturers, allowing them to share their experiences of teaching in the ODeL context. Furthermore, a case study method is ideal when “How” or “Why” questions are asked (Maree 2016); therefore, a case study was best suited to answer this study's research questions. Furthermore, the study was qualitative in approach. Qualitative researchers are interested in people's experiences. This study focused on the experiences of ECCE lecturers teaching in an ODeL system. This study attempted to explain the reality, not through universal laws of knowledge but through understanding the benefits and challenges that ECCE lecturers experienced in teaching through ODeL (Creswell and Creswell Báez 2016).

Participants

Purposive sampling was employed to choose a private higher education institution that offers ECCE programmes through ODeL. One advantage of purposive sampling is that it allowed me to ensure that each participant in the sample contributed meaningfully to the research (Maree 2016). A total of five lecturers, all teaching ECCE modules, were selected based on their experience in lecturing higher certificate in pre-school education courses through ODeL. These lecturers provided valuable insights into how they structure their teaching and learning processes, as well as how they utilise communication to reduce transactional distance in ODeL.

Ethical Considerations

As advised in McMillan and Schumacher (2014), before commencing with the study, I obtained ethical clearance from the ethics committee of the sampled institution. Furthermore, I gave participants a letter explaining in detail the focus of the study and how the study would be conducted, as well as the roles of the participants. Furthermore, the letter explained that participation was voluntary and that they could withdraw from participating whenever they felt uncomfortable. Participants were also told that all data were confidential and used solely for the study. Lastly, the participants signed an informed consent form to show their willingness to participate in the study.

Data Collection Methods

One-on-one semi-structured interviews were used to collect data from the participants. These interviews were conducted using Microsoft Teams (MS Teams). The use of MS Teams was the best option because participants were geographically dispersed and could not come to a central location. As a result, the researcher had to use technology to bridge this distance as advised by the theory of transactional distance that underpinned this study. Furthermore, semi-structured interviews were adopted for their flexibility; they allowed the researcher to ask one major question to participants, and upon participants' responding to the question, the researcher paused for clarity and probing (Maree 2014). The interviews lasted approximately 30–45 minutes and were automatically recorded on MS Teams. This allowed me to listen to the interviews again to derive meaning during the analysis phase.

Data Analysis

The data were analysed using thematic analysis, described by Gray (2014) as a method in which patterns are identified and analysed within the qualitative data. The process of analysis started with me reading the field notes, studying the transcripts, and later dividing them into codes. This process generated themes from the interview. Similarities, differences, themes, categories, and common ideas were clarified. The emerging themes were then analysed and compared with the literature. The next step was reorganise, reduce, and transcribe the collected data according to codes and themes. The results were then consolidated to form an in-depth description of the results (Braun and Clarke 2006).

Findings, Analysis, and Discussion

The following themes emerged from the analysis of the interviews.

Theme 1: Using the Canvas Learning Management System to Communicate

Concerning how lecturers communicate with their students, it appeared that all the lecturers communicated with their students using the Canvas LMS. The verbatim responses of three lecturers follow:

I use announcements, of which it is a standard form of communication, there is also something I have adopted, like our weekly update to keep all my students on par with what is happening. I would send an announcement on Canvas to let them know that this is week 2 and you should be on this unit at this point. (Lecturer 1)

So, one of the strategies which is not a reciprocal dialogue is the weekly announcements. So, it's telling them that this week you are expected to be working on this topic or start preparing for an assignment. (Lecturer 2)

There is a Q and A section on Canvas, so I respond to student questions when they have sent their queries there. Discussion forums are also a good way to communicate with students and they can also communicate with their peers. (Lecturer 3)

The use of technologies such as the LMS has the potential to close the transactional distance between lecturers and students and between students themselves (Sevnarayan 2023). Moodle as an LMS can help lecturers reduce the transactional distance by creating courses that are not rigid with the inclusion of ample interaction and communication between stakeholders. Although these lecturers used Canvas to communicate with students, it appears that interactive dialogue was not achieved. Many lecturers posted weekly announcements to update students on expectations, but only one mentioned using a discussion forum for students to contribute their thoughts. Lecturers should create many opportunities on the Canvas site for appropriate dialogue and interaction, such as discussion forum activities. This will help with lecturer–student and student–student contact to lessen the transactional distance (Moore 1997).

Theme 2: Flexible Instructional Design and Content Delivery

The analysis of the interview data showed that lecturers include multimedia when designing their courses on Canvas to accommodate different students with various learning styles:

You know we use synchronous and asynchronous means, and you do a lot of videotaping and audio taping, and you know students can read body language. (Lecturer 1)

So to give them flexibility in terms of their studies and what's been quite effective for me is making sure at the beginning of the semester that your Canvas page is set up completely with all the due dates with all the submission portals, with the guidelines, videos with the content, so that the students then have the flexibility to work at their own pace through the semester. (Lecturer 5)

Providing students with assessment for students' guidelines on Canvas before allows them to see what is expected, and loading assignment templates and study guides allows students to self-pace. When students have those materials loaded online, they can study by themselves and contact me when they feel stuck or do not understand something. (Lecturer 2)

When lecturers were asked how they make their teaching and learning less rigid, many mentioned that they use synchronous and asynchronous tools to allow students to interact with the content, consistent with Mashile and Motoane (2020). Participants mentioned that at their institution, they host distance learning support sessions on Saturdays via Zoom for students to attend. These sessions are held three times per semester and are recorded for students to revisit. This is an important factor to consider when supporting students academically, especially those who need extra support, such as higher certificate students.

Course structure also plays an important role in student learning through ODeL. With a very clear course structure, students and lecturers can effectively interact with each other (Kim et al. 2020). Effective engagement in course content, in turn, leads to a strong sense of learner control (Anders 2015). The participants mentioned that they ensure that they set up everything on Canvas for the students at the beginning of the semester for ease of use. For example, two weeks before the semester starts, lecturers post the assignment due dates on Canvas, learning outcomes for each unit, PowerPoint presentations for all the units, and related videos. A good course structure and organisation in ODeL can contribute to positive learning outcomes. When there is a clear structure, students feel more supported and will be more positive about completing the course. Course structure is also important for promoting self-directed learning in an online learning environment. Students will be able to use self-directed learning skills largely because of early access to the course on Canvas for establishing study plans and because of a clear alignment between the course assignments and the examination task. This is in line with Kim et al. (2020) who identified that highly self-regulated students followed the guided course sequence on the LMS and earned greater depth of content comprehension.

Theme 3: Assessment and Feedback to Reduce Transactional Distance

Assessment was used strategically to reduce transactional distance in students by enhancing interaction, providing timely constructive feedback, fostering student autonomy, and ensuring alignment with learning goals. The participants had the following to say about using assessment to support higher certificate in pre-school education students:

We also try to differentiate for different learning styles, so we would have some question or something that is print based. Then we would have something that's application based where students would use videos to explain or reflect something. (Lecturer 4)

But from the lecturers' perspective, we try by all means to give that umm and a sense of belonging when they contribute; even when I'm marking my assessments, I give those comments, umm, a positive with positive outlook, encouraging them each time I get a chance to speak to a student, motivating them to pull up their socks and go ahead. (Lecturer 2)

So, I take them through each assignment in detail with examples. I make mine very specific and provide exactly what it is that we're looking for. So for them to get confidence, they must know what they are doing. There must be sufficient feedback for them to work on to improve for the next time. (Lecturer 3)

Moore (1997) describes structure as the level of the course's rigidity and flexibility, and this includes the course assessment as well. The participants achieved this by ensuring that they develop assessments that cater to the needs of the higher certificate students by using assignments and online tests rather than exams. Secondly, the participants ensured that they communicated the assignment expectations with students through the Saturday distance learning support sessions or video recordings. As Moore (1997) suggests, providing clear communication and feedback helps reduce transactional distance, fostering a more connected learning environment. Furthermore, the participants provided prompt and detailed feedback on assignments and assessments to help students understand their progress and areas for improvement. Timely feedback fosters a sense of connection between the student and the lecturer, reducing the perception of distance and promoting a supportive learning environment. Another important aspect is that they personalised feedback that addresses individual student needs and encourages further learning.

Discussion

This study's findings provided valuable insight into how ECCE lectures can apply Moore's theory of transactional distance to support students in the ODeL environment. The findings indicate that Moore's theory of transactional distance can be applied by ECCE lecturers to provide academic support to students who are studying towards a higher certificate in pre-school education (Moore 1997). These research findings concur with the study conducted by Dlamini and Chauke (2024), who assert that geographical separation between lecturers and students poses a significant challenge in the ODeL environment. This results in students struggling to access the necessary academic support, acting as a hindrance to their academic success and leading to underperformance. Therefore, there is a need to support these students so that they can achieve desirable academic outcomes.

This study revealed that the participants used technology to ensure that there was communication between them and the students, and between the students themselves. The participants used tools within the LMS to initiate dialogue between themselves and their students as proposed by the theory of transactional distance (Moore 1997). This is consistent with Sevnanayan et al.'s (2023) findings that using an LMS encourages student interaction and autonomy. However, although the participants used this tool to initiate dialogue between them and their students, it appears that this initiative was not always successful as many students did not engage in conversations. The participants reported that they struggled to get students to engage in conversations so that they could help them. Furthermore, to provide additional support to the students, this institution

uses Saturday distance learning support sessions using Zoom to help students. This is a good synchronous way of interacting with students and eliminating the transactional distance that may exist, as Kikubu et al. (2020) advise. However, the participants still struggled with student engagement during these sessions as many students did not attend, and when they did, they did not participate by answering or responding to questions. This sometimes frustrated the lecturers because they ended up presenting a one-way session without engagement. Although these sessions are recorded to provide asynchronous learning opportunities (Kikubu et al. 2020), the lecturers would like to engage with their students in real time to increase their social presence and create quality dialogue that help to solve students' problems and decrease the transactional distance.

According to Moore (1997), course structure is important to reduce the transactional distance between students and their lecturers. Findings from this study suggest that the participants did their best to make the teaching and learning flexible enough to provide academic support to their students. Lecturers achieved this by setting up the course on Canvas with the relevant information that students need for their studies. Strategies included a welcoming message to the students, a "Know your lecturer" section where students could get to know more about their lecturer, such as their qualifications and experience, and a photo. A welcoming video showing them how to access information on the site was also provided. Assignments and video presentations for asynchronous learning were also provided. All the efforts mentioned here make the course structure flexible to students for them to feel more supported with transactional distance reduced.

The participants also used assessment to make the course less rigid. The participants varied their assessment activities to accommodate different students in one group. Furthermore, they mixed written assignments with interactive videos where students had to present their work through a video, which assisted with academic improvement as many students in the higher certificate in pre-school education programme are not yet ready to engage in academic writing. Technology and multimedia can make assessments more interactive and engaging, reducing the perceived distance by creating a more dynamic and responsive learning environment (Moore 1997). Lastly, providing timely constructive feedback was seen as a good supporting strategy from lecturers. Mills (2014) stated that the performance measures in the ODeL process are students' feedback and the lecturer's feedback. The lecturers in this study understood the importance of feedback in ODeL. Therefore, they used it as a supporting tool by ensuring that they provided students with feedback as soon as possible after the marking process was conducted. The feedback provided was constructive in such a way that it addressed students' problems and advised them on how to improve for future learning processes. To increase lecturers' social presence, tools such as voice note recordings and video recordings were used when providing students with feedback. By leveraging these assessment strategies, educators can create a more interactive, engaging, and supportive learning environment, effectively reducing transactional distance and enhancing students' overall educational experience.

According to Moore (1997), learner autonomy refers to the sense of both independence and interdependence perceived by students as they engage in the course. Learner autonomy is intimately tied in with a learner's sense of self-direction or self-determination, and this can be significantly affected by the dialogue, the level of rigidity or flexibility inherent in the course design and delivery, and the extent to which the learner exerts control over learning procedures. Firstly, in this study, the participants used tools within the Canvas LMS to initiate dialogue, although this was not achieved as it was challenging to get students to engage. Secondly, the participants understood that a flexible course structure is important to support students, and they achieved that. The findings suggest that the participants successfully achieved the less rigid course structure advised by Moore (1997). However, it is unclear how efforts such as communication and designing a less rigid course structure influenced students' autonomy.

Suggestion for Further Research

As mentioned above, this study focused on how lecturers can use Moore's transactional distance theory to support ECCE students in an ODeL environment. The findings of this study are limited to lecturers' perspectives without students' perspectives. However, an important factor in Moore's theory of transactional distance is the students' autonomy, which can only be fully assessed from the students' perspective. Therefore, future research should focus on gathering students' perceptions of how lecturers' use of dialogue and course structure impacts their autonomy and learning experience. Furthermore, Canvas as an LMS is used by only a few institutions in South Africa; therefore, it would be worthwhile to investigate how this LMS can reduce the transactional distance between lecturers and students and between students themselves.

Conclusion and Recommendations

The current study examined how the ECCE lecturers can use Moore's theory of transactional distance to support students in an ODeL environment. The article argued that higher certificate in pre-school education students need extra academic support owing to their low matric results and need extra support to be able to study for a bachelor of education degree. Moreover, support is extremely needed since they are studying through ODeL and may experience transactional distance. Although the participating lecturers applied Moore's theory of transactional distance, the findings suggest that they struggled to create dialogue between them and their students to support them. The course structure was less rigid to provide students with academic support using Canvas and differentiated assessment. To reduce the isolation and distance between the student and the university, this study's findings can guide ODeL institutions in implementing strategies that reduce transactional distance and improve academic support, ultimately enhancing student success.

Based on the study's findings, it is recommended that:

- Students respond more positively when multimodal learning resources and activities are developed, including podcasts, vodcasts, memes, pictures, PowerPoint presentations, flowcharts, symbols, graphs, and figures. Lecturers should try to incorporate such to enhance dialogue between them and their students.
- Lecturers should be provided with ongoing Canvas support to equip them with skills to use interactive tools within the LMS to attract students' engagement.
- Students should be provided with enough technical support for them to manipulate the technological tools in the LMS when communicating with lecturers.

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