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## Perceptions of a Peer-Assisted Learning Programme on Academic Success Among First-Year Education Students at a Rural University

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**Abstract.** This study examines the perceptions of first-year education students regarding the impact of a Peer-Assisted Learning (PAL) programme on their academic success at a rural university. Drawing on Vygotsky's Zone of Proximal Development (ZPD) theory which posits that learning is optimised with support from a "More knowledgeable Other" (MKO), the research explores PAL as a vital academic support system. The literature highlights PAL's role in student retention and its alignment with student preferences for interactive learning over traditional didactic methods. Utilising a qualitative, interpretivist case study design, data were collected through semi-structured interviews with eight purposively sampled first-year students. Thematic analysis demonstrated that PAL significantly enhances academic understanding and confidence by providing relatable explanations and fostering collaborative learning. However, challenges include inconsistent quality of PAL leaders, resource limitations in rural settings, and unique academic hurdles faced by rural students. The study concludes with recommendations for improving PAL's effectiveness through enhanced leader training, infrastructure development, formalised programme integration, and culturally responsive approaches.

**Keywords:** Peer Assisted Learning; Rural University; Student Perceptions; Academic Support; Zone of Proximal Development (ZPD)

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## 1. Introduction

In the early 1990s, students at higher education institutions in Western countries participated in peer-assisted learning (PAL) programmes as part of their educational experience (Clarence, 2016). As a result of the widespread belief that PAL may help students learn more effectively and improve their academic performance, most educational institutions that offer higher education have made it their primary focus (Clarence, 2016; Gevers & Makkink, 2020). The students currently enrolled in higher education are Generation Z students who learn in a manner distinct from students of previous generations. These students are known for their preference for interactive and collaborative learning, often facilitated by technology. As a result, the method of instruction and learning needs to be modified to accommodate the learning needs and demands of this generation in an efficient manner. Learning from one's peers has been discovered to be an efficient method of instruction (Smith, 2009).

According to research conducted in education (Capstick, Fleming, & Hurne, 2004), the effectiveness of PAL in fostering academic achievement has been widely acknowledged. The PAL programme, also known as peer tutoring or peer mentoring, involves students teaching or guiding other students in their learning process. Research has shown that participating in activities that are part of the PAL programme can result in a variety of positive outcomes for students (Gevers & Makkink, 2020). These outcomes include increased motivation, higher information retention, stronger critical thinking abilities, and overall academic accomplishment (Capstick et al., 2004).

Furthermore, it has been demonstrated that the PAL programme helps students build a sense of belonging and community and the interpersonal and communication skills essential for success in academic and professional contexts. First-year students who move on to higher education institutions face many changes, such as moving from their communities and having a different way of education. These changes have a greater impact on students from rural areas, who are known to be disadvantaged regarding resources and the education system (Cain & Smith, 2020). Jury, Smeding and Darnon (2015) state that students from a lower social class or disadvantaged locations are already viewed as having a lower chance of succeeding in university.

Through all the changes, students are expected to fit into most universities' blended learning styles, especially after the COVID-19 pandemic disrupted educational norms. Uleanya and Rugbeer (2020: 30) state that "access without support is not an opportunity, which means that students are enrolled at the university for different courses without tailored efforts to ensure that they receive all the support required to succeed in their studies." The effectiveness of the PAL programme in the rural university where the research will be conducted has been studied. However, the voice of the students who are being supported is unclear. Williams, Vidal, Carletti, Rizvi and Tolchinsky (2021) suggest that further research can be conducted on how this programme can be improved to suit students' academic needs.

### 1.1 Research Questions

- Does participation in a peer-assisted learning programme positively impact the academic performance of first-year students in a rural setting?
- What challenges do rural first-year students perceive in utilising peer learning for academic achievement?
- How can peer-assisted learning programmes be improved to address first-year students' learning experiences in a rural university?

## 2. Literature Review

The literature review considers both the benefits and drawbacks that students encounter when they take part in PAL activities compared to traditional learning techniques, as well as the students' perceptions regarding using this method and the suggestions they provide. This programme has been understood as a need at higher education institutions because, as Makala (2017) explains, students are more likely to drop out during the first two years of study, with the highest percentage dropping out during the first year. As a result, there is a requirement for academic support among students. This programme has been considered as an important component of student retention when attempting to establish a connection between student dropout and academic success or failure (Smith, 2009).

### 2.1 The benefits and challenges of peer assistant learning compared to traditional learning methods

The views and preferences of students about learning have shifted over the last ten years as evidenced by research that has demonstrated that students no longer prefer didactic teaching approaches. On the other hand, they favour learning methods that involve interaction, self-directed learning, and peer-assisted learning (PAL) (Jawhari et al., 2021). During the past several years, a technique of support known as peer-assisted learning has been utilised to aid students throughout their academic journey and to improve the quality of their educational experience.

Further explanation is provided by Nisar, Mahboob, Khan, and Rehman (2021), who state that "through this practice of PAL learning, acquisition of knowledge and skill takes place through active helping and support among status equal or year-specific matched companions." Peer-assisted learning is beneficial not just for the student who is receiving assistance but also for the student who is helping, which in this example is an advanced senior student. This was supported by Gonglewski and Baker (2021) in their research, where they indicate that the junior students who receive assistance gain a better comprehension of the subject, while the older students deepen their knowledge and increase their skills.

As a result of senior students sharing their expertise with other students, they are more prepared for their jobs since they can apply the theory they have learned. When it comes to issues that are difficult to comprehend using textbooks and even when they are being taught by their own instructors, the PAL programme can be of assistance to students who are just starting out (Bermingham, Boylan & Ryan, 2022, Makala, 2017). In the realm of PAL model implementation, the institutions

of higher education that specialise in the fields of science, technology, engineering, and mathematics have been in the forefront of the implementation of PAL (Makala, 2017, Bermingham et al., 2022).

The adoption of PAL models has been known to enhance active learning, which results in students taking responsibility for their own learning. The student is allowed to be the centre of their own learning, and the focus is on the student's academic success rather than on the teacher or lecturer's ability to impart their knowledge to them (Stephen Perse Foundation, 2017). This is one of the key differences between the traditional learning method and the PAL learning programme. This statement does not mean that the traditional method of education does not have a place in the field of education, since it still does. There is need to utilise the two approaches in a balanced manner.

At the time of the COVID-19 pandemic, educational institutions of higher learning underwent a significant transformation, which included the transition of learning to online platforms and, once the epidemic had passed, the transition to blended learning (Wang & Xiaoyang, 2022). Even when students were participating in online sessions, they needed to have access to the academic support systems that assist students. According to research conducted by Nisar et al. (2021), several difficulties are associated with utilising the PAL programme in higher education. These difficulties include issues with internet access and the requirement that some concepts be conveyed in a practical manner, depending on the subject matter.

According to Nisar et al. (2021), the requirement that certain modules include practical exercises can be beneficial in assisting students in developing a greater sense of self-assurance when their PAL leaders are present, and they are engaged in activities or tasks that require them to be physically present. The PAL sessions with the students can be negatively impacted by connectivity issues in several different ways, including the quality of the videos and the sound. This can create a barrier to communication between the PAL and the students. Nisar et al. (2021) indicate that another problem that was identified in the research was the mistrust that some of the students have towards their assigned PAL. Some of the students do not believe that they must be supported by another student, even if that student is more senior than they are. Since they believe they are unable to gain a significant amount of knowledge and competence from the PAL, a few of the students have expressed their scepticism over the PAL programme.

## **2.2 Students' perceptions towards using the PAL programme**

Students have a positive view toward the PAL programme because they are less hesitant to ask questions. If they were to ask their lecturer or professor, they would undoubtedly be afraid to ask them questions. According to Gonglewski and Baker's (2021) research, students felt that the PAL made tough concepts easier to understand and more relevant to the topics that they are currently studying, as well as explaining how to apply the principles. Because the PAL can bridge the language barrier, most of the PAL support is able to speak the language that most of the students speak. This is another reason why the students felt comfortable

with the PAL. According to Gonglewski and Baker (2021), the presence of these support programmes in higher education institutions also plays a part in bridging the language barrier gap. With most of the PAL sessions, students can speak in their native language, which makes the process of learning and communication much simpler.

In a study of students at a historically disadvantaged university, Makala (2017) found that participants held favourable attitudes toward PAL support. According to the findings of the study, some of the students reported that they felt comfortable asking questions and expressing their thoughts during the sessions. All the students had wonderful things to say about the excellent effects that this programme had on their academic development. A notable gap and limitation of this study lie in the participant sample, which consisted exclusively of students who regularly attended PAL sessions. Consequently, the perspectives of students with negative attitudes toward the programme are not represented in the data. According to Elshami, Abuzaid and Abdalla (2020), the PAL programme could cause students to develop a negative attitude toward a lecturer whom they struggle to understand during the programme. This is because the students believe that they would rather pay attention to the PAL assistant, who is able to explain some of the concepts in a significantly straightforward manner.

There is a decrease in the number of students attending lectures once some of them have become accustomed to the PAL. According to Jawhari et al. (2021), the research revealed that the majority of the students had positive experiences with the PAL programme. However, the researchers also found that some students had negative opinions of the programme. Even though the study was quantitative, the findings of the research conducted by Jawhari et al. (2021) may be considered more conclusive because a greater amount of data was obtained from the students. The findings of this study demonstrate that although the PAL programme is advantageous for most students, it is not beneficial for all individuals. Therefore, educational institutions of higher learning ought to investigate strategies to accommodate both types of students within their student body.

### **2.3 Suggestions for improving the effectiveness and accessibility of PAL in promoting academic success**

In Makala (2017), students highlighted that the lack of venues and time for holding the PAL sessions was a barrier, and they requested that the time for these sessions should be included in the academic schedule of the school as done for regular lectures. Since research has demonstrated that students gain a great deal from these meetings with the PAL, this recommendation may prove beneficial. Students have had difficulty applying the knowledge they have been taught in university over the years when traditional learning methods were used.

However, students are more likely to apply what they have learned and become more innovative while using this strategy. Nisar et al. (2021) note internet connectivity and accessibility as barriers to online PAL to maximise students' available time. To make this a reality, it is necessary to guarantee strong connectivity on campus and in residences where students live. Some students had

a negative attitude toward PAL because they believed that the PAL did not have adequate knowledge about the content that they were attempting to assist them with. To address this issue, there ought to be a more productive working connection between the PAL and the lecturer. The presence of such a relationship will guarantee that the PAL can ask questions that seek clarity without experiencing any anxiety.

### **3. Methodology**

The qualitative research method was chosen as more suitable for this research to address the research questions. Qualitative research is exploratory and tries to figure out "how" and "why" a unique cultural event or programme acts the way it does in a certain scenario. It tries to facilitate understanding of our social surroundings and why things are the way they are (Du Plooy-Cilliers, Davis and Bezuidenhout Terr, 2023). According to Castleberry and Nolen (2018), qualitative research is an organised scientific investigation that tries to generate a complete, mostly narrative explanation of a social or cultural phenomenon to inform the researcher's knowledge. A qualitative research approach was used to collect data to understand the participants' perspectives on the research topic (Du Plooy-Cilliers et al., 2023).

#### **3.1 Data Collection and Analysis**

The study's population comprises first-year students enrolled at a selected rural university who participated in the PAL programme. To obtain rich, in-depth data, purposive sampling was employed (Dudovskiy, 2022). The sample size was set at eight first year students, with three male and five female participants. Semi-structured interviews were chosen as the primary data collection method. This widely used qualitative interview approach is favoured for its ability to gather in-depth information through open-ended questions, allowing respondents to elaborate on their experiences (Cohen, Manion & Morrison, 2007; Roulston, 2017). A thematic analysis was used to analyse the data in this study.

According to Braun and Clarke (2018), thematic analysis is a flexible procedure that permits the researcher to focus on the data in various ways. Braun and Clarke (2006) further define thematic analysis as a procedure for identifying, analysing, and reporting patterns within data, which will be used to transcribe, code, and analyse the interviews for primary themes. A theme is a "patterned response or meaning" created from the data that informs the study question (Braun & Clarke, 2006). A theme symbolises a certain level of patterning or sense within the data and captures something crucial about data regarding research objectives (Braun & Clarke, 2006).

### **4. Results, Findings and Discussions**

This section presents the major findings of the study, based on the analysis of data collected from participants through interviews.

## 4.1 Qualitative Findings

### 4.1.1 Theme 1: Enhanced Academic Understanding and Confidence

The PAL programme significantly boosted the students' academic comprehension and self-assurance, as the PAL leaders acts as a More knowledgeable Other (MKO) within Vygotsky's Zone of Proximal Development (ZPD). S2 mentioned that they gained full confidence in their academic work by attending the PAL sessions, as "I have only participated in a PAL programme for English and Maths since those are the only modules that a PAL leader was made available for. However, this helped me understand better the topics that were discussed with us by our lecturer, which improved my understanding of the content."

One-on-one sessions were found to be highly effective, as S1 noted that, "During my participation in the PAL programme, the only thing that worked out for me was the one-on-one interaction with the PAL leader, not really the sessions with the rest of the class. There was always a difference when I had alone time with the PAL". This direct support helped students grasp concepts they struggled with independently (Shabani et al., 2009). The sessions with the PAL leaders are always informal, which encourages shy students to openly ask questions and participate, as S7 admitted that "I've had a generally positive experience with the Peer-Assisted Learning (PAL) programme since starting university. I became involved in the early part of my first semester and have tried to attend every day. The sessions are relaxed and held in small groups, which makes it easier to engage. I found it more comfortable to ask questions in these sessions than during formal lectures because I get scared. The student facilitators were friendly and often explained things in a more relatable way." This highlights how PAL effectively facilitates learning within the ZPD.

The findings in this theme align with Vygotsky's ZPD theoretical framework, where PAL leaders serve as MKOs (Tran, 2022). Students achieve better understanding with peer support from PAL leaders (Shabani et al., 2009). The programme's informal nature fosters a safe space for questions, reducing fear that is common in traditional settings (Gonglewski & Baker, 2021). S4 affirmed that, "The PAL leaders help me understand the work better because they explain in a simple way. The peer leaders give examples we know from life, and we can ask questions. That helped me a lot, like in my education theory class - the PAL made it easier because they showed how to use the theory in real life, not just in books, directly demonstrating enhanced academic success." This confirms PAL's role in actively engaging students and improving comprehension, aligning with research on student-centred learning (Stephen Perse Foundation, 2017).

### 4.1.2 Theme 2: Relatability and Collaborative Learning

Students valued how much easier it was to understand some of the module concepts when explained by the PAL leaders, more than when explained by the lecturer. This reflects on Vygotsky's emphasis on the impact of social interaction for learning amongst peers, being closer to the students' ZPD, and offering more accessible explanations. S5 stated that, "The explanations from senior students, who had already done this module, were explained better because they were more relatable and easier to grasp than textbook explanations. Working with groups improved my critical thinking and problem-solving skills. Peer assistance

improved my academic performance as well as my knowledge in the subject." This peer connection is important for understanding complex topics, as Bermingham, Boylan & Ryan (2022) suggest.

The PAL programme also fostered active collaborative learning, where students discussed and shared strategies. This theme strongly supports Vygotsky's ZPD by illustrating how social interaction with an MKO (the peer leader) facilitates knowledge acquisition (Shabani et al., 2009). S6 indicated that "It allowed me to solidify my understanding of core content," which highlights how both PAL leaders and students deepen their understanding in these sessions (Gonglewski & Baker, 2021). Students' preference for interactive methods over traditional approaches further confirms a change in learning paradigms (Jawhari et al., 2021).

#### *4.1.3 Theme 3: PAL as a Bridge for University Adjustment and Academic Integration*

The PAL programme served as a necessary tool for first-year students' successful transition to university, especially for students from rural backgrounds. This support goes beyond academics, but it also helped as a source of guidance on coursework management and on how to navigate the new environment. PAL leaders help to ease the overwhelming nature of the new university life by providing practical advice and mentorship to the students. S3 explained that: "It has helped me to adjust to the university environment from high school. My PAL educators provided guidance on managing my coursework, which made a big difference.

The finding aligns with PAL's role in student retention, particularly in the critical first year of study (Makala, 2017; Smith, 2009). The programme bridges the academic gap between high school and university, providing essential academic support that contributes to student success (Makala, 2017). The boost in confidence, as S3 elaborated, "Learning from someone who has gone through a similar learning experience was valuable, and it boosted my confidence in navigating university life," is important for overcoming early academic hurdles. This holistic support, extending beyond content, is necessary for fostering overall academic well-being and preventing a high number of student dropouts, a significant challenge for higher education institutions.

#### *4.1.4 Theme 4: Inconsistent Quality and Commitment of PAL Leaders*

A major concern was the inconsistent quality of instruction and varying commitment of PAL leaders, directly hindering the PAL programme session effectiveness. This creates a barrier within the ZPD when the MKO (PAL leader) is inadequately prepared. Students reported leaders lacking deep topic understanding, leading to misinformation, as S1 stated that: "PAL leaders didn't always fully understand some of the topics that were covered by our lecturer in the module, that led to students having to correct them and this brought about a lot of misinformation and confusion amongst the students." When this happens during the sessions, it erodes trust between the student and the PAL leader and forces the students to seek clarification elsewhere.

The mistrust some students have towards PAL leaders, as noted by Nisar et al. (2021), resonates with student perceptions of leaders not knowing enough and some lacking commitment to their work. S2 frustration, "A lack of commitment from some of the PAL leaders has affected me especially in Maths because the PAL leader didn't show up all the time," shows how inconsistent PAL leader presence can leave the academic needs of the students unaddressed. This indicates a need for stronger quality control and accountability for PAL leaders, as negative attitudes can emerge if PAL is seen as insufficient (Elshami et al., 2020).

#### *4.1.5 Theme 5: Lack of Resources and Infrastructure in a Rural Context*

The lack of resources and infrastructure directly impede PAL's accessibility and optimal functioning, particularly in a rural university setting. The lack of dedicated venues, as S3 noted, "The lack of dedicated venues for peer learning makes it challenging to find suitable spaces to collaborate study sessions," hinders the creation of a conducive learning environment, which is important for effective social interaction in the ZPD. This aligns with Makala (2017), who mentioned that the lack of venues for PAL sessions is a barrier. Beyond physical space, the scarcity of learning materials and reliable digital access is critical. S8 mentioned that "At my home, the internet is bad. I can't go online after PAL class to learn more," directly impacting the ability to reinforce learning. This mirrors the concerns expressed by Nisar et al. (2021) about internet connectivity for online PAL sessions that can affect the student's attendance of the sessions. The lack of resources and infrastructure form a barrier to access academic support, affecting students' ability to engage with their MKO beyond scheduled sessions.

#### *4.1.6 Theme 6: Navigating the Unique Academic Landscape from a Rural Background*

Students from rural backgrounds faced unique academic challenges that influenced their engagement in the PAL sessions. Initial struggles with computer literacy, as S3 mentioned, "I struggled with using a computer when I first arrived, which impacted my studies in the first semester because it took me a bit longer to know how to navigate the Learning Management system (LMS) which is used to submit my assignments and access my course notes," this highlights a foundational knowledge gap that can impact the student's ability to use digital learning resources. S6 also shared their lived experience on the difficulty of a rural background, "Coming from a rural background, I struggled with limited access to digital resources, poor internet connectivity, and a lack of academic support outside the university. These challenges made the PAL programme even more crucial, as it became a vital support structure for bridging those gaps and easing the transition into higher education."

This theme aligns with literature on challenges that are faced in a university that is located in a rural area, particularly regarding digital access (Nisar et al., 2021; Wang & Xiaoyang, 2022). The socio-cultural inequalities also played a role. S8 shared that "In peer-assisted learning sessions, I occasionally felt less comfortable speaking up, particularly when I was around peers who had greater access to academic resources. The PAL programme, however, assisted in filling in some of those gaps. It offered a more casual, welcoming environment where people could ask questions without worrying about being judged. This progressively increased my self-confidence and assisted me in overcoming the academic obstacles brought

on by my upbringing”, highlighting a potential confidence gap with peers from more privileged backgrounds. Furthermore, S4 noted that, "Some peer leaders teach like we already know things, but we don't, and we feel shy to ask." Despite these issues, the PAL programme remains crucial in bridging support gaps for disadvantaged students.

#### *4.1.7 Theme 7: Structured Training and Enhanced Support Systems*

Students expressed a strong demand for more structured training for PAL leaders and enhanced support systems. S1 emphasised, "The manner that the PAL leaders chose to conduct some of the sessions was more focused on asking us questions, mostly instead of helping us understand the work in depth. It will be helpful if the PAL leaders were trained in Pedagogies that will be helpful for first-year students." This shows a clear desire for PAL leaders to be better equipped and trained as instructional facilitators.

The call for formalised pedagogical training for PAL leaders aligns with the need for a more productive working connection between the PAL leader and the lecturer (Makala, 2017), ensuring that PAL leaders can confidently clarify concepts. S5's suggestion for "additional guidance on subject matter and teaching methods" mirrors the general call for improved quality in the PAL programme (Nisar et al., 2021). The proposed improvements are dedicated venues (Makala, 2017), provision of learning materials (Nisar et al., 2021), and integration into academic schedules (Makala, 2017), which aim to address known barriers and enhance the accessibility and effectiveness of PAL leaders as a crucial academic support system for all students.

## **5. Recommendations**

Students from rural areas reported specific challenges such as initial struggles with computer literacy, discomfort in speaking up, and a feeling of being misunderstood by leaders from urban backgrounds. A culturally responsive approach aligned with Vygotsky's emphasis on social context will ensure that PAL effectively addresses these unique needs, creating a truly inclusive and supportive learning environment that empowers all first-year students to thrive.

## **6. Conclusion**

The research examined the perceptions of a PAL programme among first-year education students at a rural university and revealed PAL's significant positive impact on academic success, particularly through the lens of Vygotsky's (ZPD) theoretical framework. The findings demonstrate that PAL serves as a crucial MKO, effectively scaffolding student learning by providing relatable explanations, fostering confidence, and easing the transition into university life. Students highlighted the individualised support, the comfort of asking questions in an informal setting, and the direct correlation between PAL participation and improved academic performance. The collaborative nature of peer interaction deepened understanding and encouraged active learning, aligning with modern pedagogical preferences over traditional teaching methods.

However, the study also unveiled critical challenges, primarily stemming from inconsistent PAL leader quality and commitment, coupled with significant resource and infrastructural limitations, particularly affecting students from rural backgrounds. These limitations, including inadequate digital access and a lack of dedicated learning spaces, underscore a systemic barrier to the programme's full potential. While the programme is an important component of student retention and academic support, its effectiveness in a rural university context depends on targeted improvements in training and resources, and a more culturally sensitive approach to addressing the unique needs of this student population.

### Conflict of Interest

Any other information presented at the end of the paper must be treated as normal, separate sections and numbered.

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