Teachers and Students Mentoring Program: Intervention towards A Comprehensive Student Academic Performance

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Abstract: This research investigates the impact of a mentoring program on enhancing student academic performance within an educational setting. The study employs a mixed-methodology approach, incorporating both qualitative and quantitative data collection methods to assess the program's effectiveness. The intervention involves mentorship provided by experienced teachers to students, aiming to improve not only academic outcomes but also students' self-confidence. Findings from the study indicate a positive influence on academic performance, as students who participated in the program exhibited significant improvements in their academic results. Moreover, the mentoring program was successful in enhancing student self-confidence in presenting their work. Weekly formative tests were used to continuously monitor and assess student progress, serving as a reliable measure of the intervention's effectiveness.

Keywords: Teachers, Students, Mentoring Program, Academic Performance

Introduction

In the process of integrating novice student teachers into the teaching profession, the role of a mentor teacher is pivotal in the field of teacher education. In a teacher training institution, the expectation is that teachers would continually provide guidance to student teachers throughout the year to establish daily routines and bridge the gap between academic study and practical classroom teaching. In such educational settings, educators have well-defined roles to fulfill. Similar programs have been in existence worldwide for many years, known as teacher training schools, normal schools, practice schools in Finland, and as laboratory or professional development institutions in the United States. Teachers in these institutions have a clear understanding of their responsibilities as mentors.

However, in South Africa, where teaching schools have been recently established, it is likely that teachers are still in the process of shaping their understanding of what a mentoring role entails, despite their extensive training and years of experience.

Today, at-risk students are often underrepresented and lack the support they need. Yet, mentoring and leadership programs are frequently implemented in neglected schools as strategies to address behavioral issues and enhance academic outcomes within the education system. However, there is limited evidence to suggest that in-school mentoring and leadership initiatives significantly improve students' academic performance. This study aims to investigate a student leadership and mentoring program within a school, filling a gap in the existing literature on this topic.

The research seeks to explore the impact of a teachers and students mentoring program as an intervention to enhance overall student academic performance.

Hattie (2003) identifies five significant dimensions associated with expert teachers, drawing upon a comprehensive analysis of the literature and a synthesis of over 500,000 studies. These dimensions further elucidate the characteristics of teachers who, in Berliner's (1994) model, are situated at stage five. Expert educators possess the ability to recognize vital information within their subject matter, facilitate learning through classroom interactions, monitor student progress and provide constructive feedback, demonstrate attentiveness to affective qualities, and exert a substantial influence on student outcomes.

Despite their shared characteristics, there exist fundamental distinctions between experienced and expert teachers. These distinctions are evident in "how they conceptualize their classrooms, the level of challenges they pose for their students, and, most crucially, the depth of cognitive processing achieved by their students," as outlined by Hattie (2003:15).

This study aims to determine the teacher's and students' mentoring program: intervention toward a comprehensive student academic performance. Specifically, this would answer the following questions:

1. What are the teacher's and students' mentoring programs be described in terms of
   1. one to one;
   2. group;
   3. formal;
   4. informal;
   5. remote;
   6. skill-based;
   7. executive?
2. Does teacher mentoring programs exert a significant effect on student performance?
3. Does student mentoring programs exert a significant effect on student performance?
4. What intervention toward comprehensive student performance may be proposed from the study?

The results of this study can offer valuable insights to the following groups:

1. Administrators: This research can assist administrators in understanding the concept of effective intervention, providing them with constructive ideas and practices to enhance their leadership styles for the purpose of improving both teacher performance and student academic outcomes.

2. Faculty: This study can provide teachers with awareness of various interventions and their corresponding effects on their professional development as educators. It can also help them enhance their self-efficacy and improve their teaching methods to align with the educational goals set by the current system.

Students: The academic performance of students can have a significant influence on their overall learning outcomes. The study's results can offer valuable insights to learners about the factors that may impact their self-confidence and performance abilities, ultimately contributing to their academic growth and achievements.

Future Researchers: The findings from this research can also prove beneficial for future researchers, serving as a valuable resource in the literature. It can act as a guide for those who wish to undertake studies of a similar nature in the future.

The study is grounded in Hacker's (2019) theory, which originated from German scientists in the field of Applied Psychology and presents a task-oriented perspective on human behavior. This theory aims to elucidate how individuals accomplish tasks and categorizes task completion into three levels. In the initial two levels of action, control operates in a feed-forward manner, meaning task completion is predetermined. Consequently, it does not offer new information for subsequent tasks beyond repetitive practice.

Figure 1 illustrates the study's conceptual framework. The independent variable encompasses various community interventions implemented by the researchers, including one-to-one, group, formal, informal, remote, skill-based, and executive approaches. The dependent variable includes interventions provided to students, focusing on enhancing their self-confidence in presenting their work and improving their performance tasks.
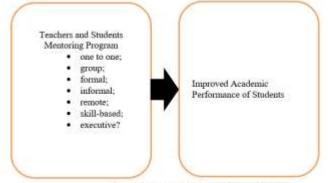

Figure 1. The Conceptual paradigm of the study

This study would employ a mixed-methodology approach, combining both qualitative and quantitative data collection methods. The quantitative methods are intended to investigate whether a mentoring program has a significant influence on the academic performance of students. The mentoring program is scheduled to commence in the third term and conclude in June 2023, coinciding with the academic year 2022-2023.

The study would involve thirty-three computer engineering students who scored 25 or lower on the midterm exam administered in September 2022 and whose ages range from 18 to 23 years. These participants are suitable for the study as they fall below the proficiency level. Additionally, four full-time faculty members who teach the mathematics subject would be included to serve as mentors for the students.

To evaluate the intervention's efficacy, the researcher would utilize teacher-created assessments for both pre-intervention and post-intervention evaluations, which would undergo validation by the School Quality Assurance Test (SQAT).

Furthermore, weekly formative tests would be integrated to gauge students' understanding of the weekly material.

In addition, a direct in-person interview with selected participants would be carried out to gather their perspectives, feelings, and experiences.

Before initiating the mentoring program, diagnostic and pre-assessment tests would be administered to the computer engineering students to assess their proficiency in cookery.

Prior to commencing the research, the researcher would consult with the dean and program chair for their input and approval.

Once permissions have been granted, the researcher would seek consent from the parents or legal guardians of the participating students in the mentoring program they have designed. The intervention would be implemented only after securing this consent, and the program would be subject to periodic reviews and evaluations.

Throughout the research period, the following ethical principles would be adhered to: safeguarding the dignity and well-being of the students and ensuring that the study's data remains confidential in accordance with the Data Privacy Act of 2012. Additionally, in order to validate the intervention program, the researcher would first obtain consent from the parents or guardians.

The researcher would organize and calculate the collected data for analysis using Microsoft Excel, with the assistance of a statistician for the statistical treatment.

The raw scores obtained from the validated teacher-made tests conducted before and after the intervention would be meticulously tabulated, graphed, and quantitatively analyzed by the researcher. Additionally, the scores from the weekly formative tests would be recorded and analyzed, serving as the primary gauge of the effectiveness of the intervention employed in this study.

Findings:

1. The mentoring program demonstrated a positive influence on student academic performance. Quantitative analysis revealed that students who participated in the program exhibited notable improvements in their academic results.

2. The mentoring program had a significant impact on student self-confidence. Students reported increased self-assurance in presenting their work, indicating the program's success in addressing this aspect of their academic development.

3. The use of weekly formative tests proved to be an effective means of assessing students' understanding and progress throughout the mentoring program. It allowed for continuous monitoring and adjustment of the intervention.

Conclusions:

The study's findings suggest that the Teachers and Students Mentoring Program is an effective intervention for enhancing student academic performance and self-confidence. The incorporation of weekly formative tests contributes to a more comprehensive understanding of students' progress and learning outcomes.

The positive impact on academic performance aligns with the program's primary goal, showcasing its potential as a valuable tool for educators and institutions seeking to improve student achievement.

Recommendations:
1. It is recommended to continue and expand the mentoring program. Further research and evaluation should be conducted over an extended period to assess the long-term effects and scalability of the intervention.

2. Provide training and support to teachers who serve as mentors to ensure they are well-equipped to fulfill their roles effectively.

3. Encourage parental involvement and communication to create a holistic support system for students' academic development.

4. Explore the potential impact of the mentoring program on other aspects of student development, such as social and emotional well-being.

5. Disseminate the successful practices and outcomes of the program to other educational institutions, fostering collaboration and knowledge sharing in the field of student academic development.

Acknowledgements

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