

Research That Followed Compared The Perspectives And Competency Levels Of Teacher Educators With And Without Prior School Teaching In The Delivery Of Demonstrations.

Corresponding Author: LIAO ZHONGXIA

Email: liaozhongxia2021@163.com

Co Author: NIDHI AGARWAL

Co Author: AMINUL ISLAM

Abstract

The ability to observe, communicate, collaborate, make informed judgements, and make decisions are just a few of the many skills that are required of educators. Education also requires a wide range of competencies. The primary objective of this research is to identify specific strategies that educators might implement in order to encourage more reflective thinking among their students. Comparing the levels of reflective thinking abilities possessed by educators with years of experience with those possessed by educators who have only recently obtained their licences allow this to be accomplished. The Reflective Thinking Attributes (RTA) and the Profile of Reflective Thinking Attributes (PRTA) instruments are two new tools that have been designed for the purpose of evaluating the capacity of teachers to engage in reflective planning and thinking. The objective of the researchers was to accomplish this by presenting a comprehensive account of the decisions that were made by both experienced educators and those who were just beginning their careers in the field when they were planning and leading two distinct types of physical education programmes. The natural curiosity of the students was the major instrument that novice teachers utilised in order to keep order in the classroom and ensure that everything ran well.

Keywords: *Teacher educator, prior school teaching, experienced teacher, non-experienced teacher, demonstration.*

1. Introduction

During most of research time working in administration at that elementary school, research relied on the cafeteria to provide me with daily lunching needs. At the school where research are done on a daily basis, there were approximately five hundred students, and this was the only opportunity to meet and get to know each and every one of them. There was a sister born a year after research was born, and then a brother was born the year after that followed. When our family outgrew our previous living situation, research parents made the decision to purchase a home rather than continue renting. Her profession was that of an x-ray technician; however, mother chose to remain at home in order to raise brothers and research while father was employed full-time in the retail industry (Ginja & Chen, 2020).

2. Background

A disagreement on whether one language should take the place of another as the official language of instruction in public schools across the country was the source of these conflicts. There have been a number of significant shifts in the national language policy of the during the course of its history. The administration that is currently in power is still trying to figure out what the most effective course of action would be for the entire any of its residents. This is because the stories are connected to one another, which is why this occurs. Not only is the timing of policies but also their design and the results of such policies are influenced by a variety of different elements. A particular ideological and political atmosphere, as well as the appropriate social and economic background, the history of significant events, and the history of key events are all examples of these qualities. The purpose of this section is to offer context for the study by analysing the history of language policy well as the present situation of language education across the country (Herro et al., 2021).

3. The purpose of the research

The study was started to accomplish a professional growth milestone. Both the researcher's academic approach and the study's topic were crucial to its creation. We discuss methods to improve our everyday lessons as university lecturers. After discussing inclusive practice, we realised that more study is needed. The phrase "inclusive education" is often used in higher education however it implies that it is just for disabled students. Not at all. Despite this, when we examined the educational challenges senior students at our institution confront, we found that many had the same sentiments. Higher education experts and policymakers have debated the need of improving postsecondary education access to improve educational fairness and inclusion for a long time. This has been debated. For this reason, we have long believed that lobbying for more inclusive educational methods is not enough. Our learning and teaching strategies must increase our capacity to teach and eliminate educational barriers. This allows us to build curricula and evaluate pupils while making

education accessible to everybody. Research studies focused on analysing the components needed to build a teaching and learning process that is effective. This research is being conducted to evaluate whether education is useful.

4. Literature Review

The second half of this piece discusses studies on pleasant student relationships and greater test results. We were discussing several scholarly perspectives throughout this talk. Historical to contemporary views were covered. Hamre, Pianta, Eccles, and Wigfield introduced: According to substantial research, excellent teacher-student connections are crucial to the academic success of all students in a school. Yes, certainly. Even if it seems paradoxical, instructors must build deep ties with their pupils to help them succeed academically. Over the last three decades, several studies have used various research methods to better understand how classroom dynamics affect student learning. The quest to understand learning methods prompted these studies. These studies sought to explore how classroom dynamics affect instructor and student learning. There is much evidence that instructors' interactions with students affect students' learning. Two types of teacher-student relationships exist. In no particular order, Jackson, Larzelere, St. Clair, Corr, Fichter, and Egertson have distributed the following publications: Education, psychology, sociology, and social constructivism scholars are increasingly interested in ways to help educators strengthen their relationships with students. These treatments aim to improve teacher-student relationships throughout the school day. Professors must be involved in their students' education to facilitate learning.

5. Research Question

- What challenges do teachers and students face while using blended learning for teaching and learning?

6. Methodology

Research Design: The study uses a mixed-methods approach, combining quantitative surveys and qualitative interviews with teacher educators from both backgrounds. Additionally, classroom observations and analysis of teaching materials are used to gather comprehensive data on their teaching practices and effectiveness.

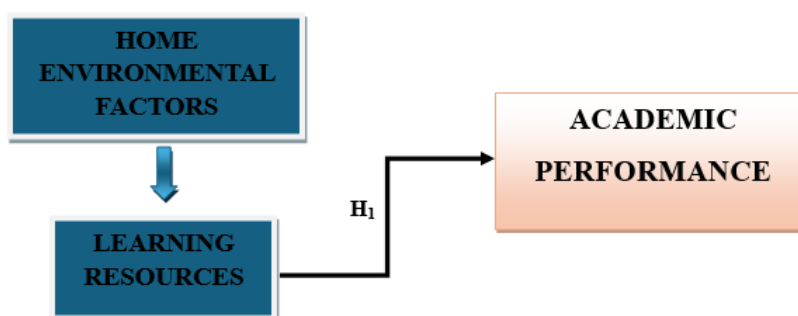
Sampling: The researcher Surveys and Questionnaires used. A systematic random sampling technique due to the short timetable and low resources. Rao-soft software was implemented to figure out the size of the sample of 600; 700 questionnaires were distributed; 630 were returned; as well as 15 were discarded due to questionnaire incompleteness. A total of 615 government schools were contacted & survey for the research.

Data and Measurement: With the advent of bidirectional analytics, the next big thing in data mining were combining real-world data with easily available digital information. A review of the literature indicates that quantitative and qualitative methods have been used in the study. Online surveys were distributed via email and social media. Qualitative interviews were conducted. The study uses quantitative methods to collect and assess data. This study collected data via an online survey. The study began by asking respondents to rate their agreement with certain online education topics. The items used literature-based scales from earlier research. The authors' own experiences adapting to this unexpected adjustment and informal exchanges with students and colleagues prompted further item revisions. This enabled the questionnaire to be tailored to the situation and participants. The nineteen objects were classified using interaction, attachment, incentive, and feedback. In the second segment, respondents rated their agreement with the identical things as in the first, but they had to put themselves in the other person's shoes. For instance, pupils and instructors might score their agreement with an issue.

Statistical Software: MS-Excel and SPSS 25 were used for Statistical analysis.

Statistical tools: Descriptive analysis were applied to understand the basic nature of the data. The validity and reliability of the data were tested. A pilot study were conducted

i) Conceptual framework



7. Results

A scientific research paper's Results section summarises the study's main conclusions drawn from the data collected and analysed. The results are presented in a logical order, free from authorial bias or interpretation, laying the groundwork for review and interpretation in the discussion section. The findings section's primary objective is to provide a concise summary of the data that demonstrates its relevance to the research question or questions. The results section should include, and contain only, the study's findings. Among the results are:

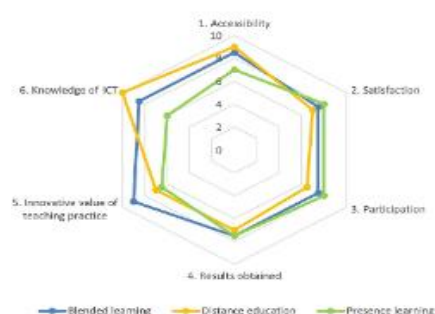
- Data presented in tables, charts, graphs, and other figures
- A contextual analysis of this data explaining its meaning in sentence form
- All data that corresponds to the central research question(s)

• Study 1

Satisfaction and engagement-related aspects of presence-based learning experiences were rated best. The correlation between technical proficiency and productivity was the poorest.

According to our findings, the online method was the most effective for increasing accessibility and knowledge of ICT, but it was the least effective for generating engagement.

Figure 1: Comparison of items in Study



May infer that the data points are highly concentrated around the geometric mean from the asymmetry and kurtosis values. We can get to this conclusion. Every single participant in the study agreed that the instructional strategies examined had a positive impact on the students. All of the study participants came to this conclusion. Every single one of the students in this class thought that the practice they performed was second to none and very beneficial to their education. They also noted that the need to switch between several forms of teaching did not detract one bit from their satisfaction with the course overall. Blended learning was the preferred method of instruction for this group's instructor. Results from Study 1 reveal that participants were very satisfied with the variety of learning activities they had participated in (Table 1). Furthermore, there is a great deal of standard deviation, asymmetry, and kurtosis in all of the variables. perfect score of 9.3 out of 10 was a direct outcome of the unforeseen advantages that come with classroom practice.

Table 1: Descriptive statistical analysis of the Academic Activity Scale in Study 1 with blended learning

Items	Arithmetic mean	SD	Asymmetry	Kurtosis
1	8,50	0,67	-0,85	-0,07
2	7,50	0,90	-0,19	-0,77
3	7,50	0,96	-0,44	-0,25
4	7,50	0,70	0,97	0,44
5	9,30	0,42	0,55	-0,27
6	8,50	0,85	0,09	0,89

Based on the statistical study of distant learning education, the results are shown in Table 2, which includes scores and indices. On top of having the highest overall score of 9.9, item 6 had the most significant asymmetry and kurtosis indices. With this question, we wanted to see how well the responder knew their way around IT. The lowest score was given to the item that measured the participants' degree of involvement. Regardless, a great deal of satisfaction was achieved.

Table 2: Descriptive statistical analysis of the Academic Activity Scale in Study 1 with

Items	Arithmetic mean	SD	Asymmetry	Kurtosis
1	9,00	0,49	-0,11	-0,77
2	7,00	0,35	-0,27	1,20
3	6,50	0,14	0,98	-0,06
4	7,00	0,07	1,22	1,64
5	7,00	0,85	0,77	-0,02
6	9,90	0,07	-0,72	-0,15

The statistical study of in-person instruction concludes with the results shown in Table 3. Here, like in all of Study 1, participation and satisfaction scored highest, but understanding the uses of ICT scored lowest.

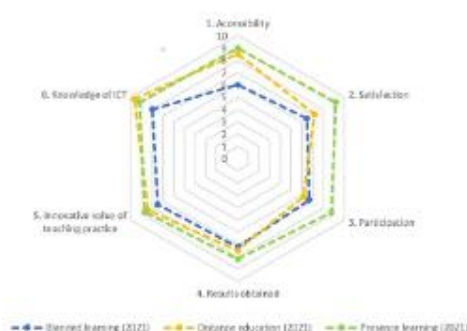
Table 3: Descriptive statistical analysis of the Academic Activity Scale in Study 1 with

Items	Arithmetic mean	SD	Asymmetry	Kurtosis
1	7,00	0,21	0,99	-0,68
2	8,00	0,78	0,52	-1,25
3	8,00	0,50	-0,35	-1,40
4	7,60	1,13	0,23	-1,49
5	6,50	0,85	0,75	0,11
6	6,00	0,57	0,34	0,16

• Study 2

All instruction improved students' average performance on the exam, the research found. The overall score for the presence learning is 8.8, with the satisfaction and accessibility grades coming very close behind. The responders who completed the test online performed the best on the section measuring their knowledge of ICTs. On a scale from 1 to 10, with 10 being the best, the average score was 7.9. A mean score of 7.0 was achieved with the application of integrated learning, which is 1.1 percentage points lower than the prior investigation. As shown in Figure 3, the most accessible degree of ICT skill was accompanied with the lowest level of accessibility.

Figure 2: Comparison of items in Study 2



Mean, standard deviation, asymmetry, and kurtosis computations were repeated in this second research in the same manner as in the first. His statement implies that the resources may be used for teaching in relation to any of the three separate forms of education.

Table 4 of the report on Study 2's blended learning shows that accessibility got the poorest possible score. This is despite the fact that the research demonstrated that the participants had substantial background knowledge of ICT. Just to reiterate, the fact that all of the variables have a mean, standard deviation, asymmetry, and kurtosis index of 1 is absolutely incomprehensible.

Table 4: Descriptive statistical analysis of the Academic Activity Scale in Study 2 with blended learning

Items	Arithmetic mean	SD	Asymmetry	Kurtosis
1	6,00	0,42	-0,04	-1,01
2	6,50	1,00	0,24	-1,20
3	6,70	0,52	0,72	0,20
4	7,20	0,99	-0,26	-0,41
5	7,50	1,30	0,34	-1,20
6	7,90	0,71	0,18	-0,34

Table 5 shows how distance learning works and confirms, once again, that knowing how to use ICT is highly regarded. Almost every rating is excellent; nonetheless, the participation score of 6.2 is the worst outcome for this kind of lesson. This number has widespread support based on the remaining data variables.

Table 5: Descriptive statistical analysis of the Academic Activity Scale in Study 2 with distance education

Items	Arithmetic mean	SD	Asymmetry	Kurtosis
1	8,50	0,51	-0,08	-0,80
2	7,20	0,57	0,20	-0,04
3	6,20	0,08	0,72	0,11
4	7,50	0,57	0,88	-0,14
5	8,40	0,26	-0,89	0,52
6	9,70	0,21	-1,13	0,98

Source: Own elaboration.

Results for the presence learning component are shown in Table 6 of Study 2, where ratings of 9.2, 9.2, and 9.0 for involvement, ICT knowledge, and overall satisfaction, respectively, were recorded. Very high-quality scores were still within reach with this setting. With an overall average score of 8.8 across all questions, this research ended up being the best performing instructional technique out of all the ones we looked at. Out of all instances, this was the only one where the mean score was 8.8.

Table 6: Descriptive statistical analysis of the Academic Activity Scale in Study 2 with presence learning

Items	Arithmetic mean	SD	Asymmetry	Kurtosis
1	9,00	0,51	-0,23	-0,67
2	9,20	0,99	-1,32	0,99
3	8,80	0,08	-0,83	-0,88
4	8,20	0,57	0,28	-0,54
5	8,70	0,58	0,78	-0,67
6	9,20	0,07	-0,25	-1,46

Factor analysis

Factor Analysis (FA) is a popular tool for validating the latent component structure of a set of measurement measures. It is believed that latent (or unseen) factors are responsible for the scores on the observable (or measured) variables. One approach that relies on models is accuracy analysis (FA). The main emphasis is on simulating the relationships between variables, including the effects of measurement error and unobserved factors.

The data's suitability for factor analysis may be tested using the Kaiser-Meyer-Olkin (KMO) Method. Each model variable and the whole model are evaluated to see whether they were adequately sampled. The statistics measure the potential shared variation among many variables. In general, the smaller the percentage, the better the data were suitable for factor analysis.

KMO gives back numbers between 0 & 1. If the KMO value is between 0.8 and 1, then the sampling is considered to be sufficient.

If the KMO is less than 0.6, then the sampling is insufficient and corrective action is required. Some writers use a number of 0.5 for this, thus between 0.5 and 0.6, you'll have to apply best judgement.

- KMO Near 0 indicates that the total of correlations is small relative to the size of the partial correlations. To rephrase, extensive correlations pose a serious challenge to component analysis.

Kaiser's cutoffs for acceptability are as follows:

Kaiser's cutoffs for acceptability are as follows:

A dismal 0.050 to 0.059.

- 0.60 - 0.69 below-average

Typical range for a middle grade: 0.70–0.79.

Having a quality point value between 0.80 and 0.89.

The range from 0.90 to 1.00 is really stunning.

Table 7: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	6639.581
	df	190
	Sig.	.000

This demonstrates the validity of assertions for sampling purposes. To further verify the relevance of a correlation matrices as a whole, Bartlett's Test of Sphericity was performed. Kaiser-Meyer-Olkin Sampling Adequacy Value is 0.921. The p-value for Bartlett's sphericity test was determined to be 0.00. Bartlett's test of sphericity showed that the correlation matrix isn't an identity matrix, with a significant test result.

Test for Hypothesis

• Dependent Variable

Academic Performance

Knowledge acquisition, skill development, and the exhibition of acquired skills are all part of academic performance, which is a multi-faceted notion. It is affected by a lot of things, yet it is a crucial measure of academic achievement. The importance of academic performance, its determinants, and methods for improvement are all discussed in this introductory section.

The main way in which students' educational accomplishments and competences are evaluated is via their academic performance. Exam scores, letter grades, and other measures of student performance on standardised tests are common ways that this is evaluated (McLain, 2017).

• Independent Variable

Home Environmental Factors: A child's growth and performance in school are heavily influenced by their home environment. A child's home life has a profound impact on their educational experiences and results, including parental participation, financial position, and resource availability. Academic achievement and general development are affected by a wide range of home contextual influences, which are explored in this introduction (Kim et al., 2023).

• Factors

Learning Resources

Essential tools for learning, learning materials allow for the acquisition of new skills and information. Whether they are human, digital, or real, these resources are vital to improving students' educational experiences. In this introductory piece, looked at the value of learning materials, the many kinds that are out there, and how they affect both academic achievement and personal growth (Tarmo & Kimaro, 2021).

H₀₁: There is no significant relationship between learning resources and academic performance.

H₁: There is a significant relationship between learning resources and academic performance.

Table 8: ANOVA

ANOVA					
Sum					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39588.620	409	5655.517	648.773	.000
Within Groups	492.770	205	5.356		
Total	40081.390	614			

The study's outcome is noteworthy. With a p-value of .000 (less than the .05 alpha level), the value of F, which is 648.773, approaches significance. This means “***There is a significant relationship between learning resources and academic performance.***” is accepted and the null hypothesis is rejected.

8. Discussion

Attendance learning stands out from the crowd because of its unique characteristics, such as engaging with students, removing technological obstacles, providing equal access to resources, and avoiding potential disputes with family mediation. Some major downsides are the time it takes to go to and from class and the difficulty of maintaining a conversation with classmates who are from other countries or who live far away. A small number of teachers have said that many schools throughout the globe have failed to detect the trend towards online education. A complicated and difficult challenge arises whenever educational institutions attempt to go towards online learning on a larger scale. The idea that students may be adequately educated in any field without having to leave the house is driving educational institutions to offer more and more courses online. Similar to Big's concept, this study assumes that discussions about how to better the school and its instructors should take place outside of the classroom. At this point, the inquiry began. It is essential to include the educational community and, specifically, the university in the transformation process for any new endeavors to achieve success.

9. Conclusion

When it comes to the process of relationships being established between teachers and the pupils they teach. They are of the idea that by using techniques that are founded on research, teachers have the potential to enhance the dynamics of the classroom and cultivate healthy connections between themselves and their students. In accordance with the findings of the literature review, the particular research procedures that the individual who participated in the study employs have substantial origins in the academic fields of sociology, psychology, and education. The findings of this case study were used in the process of putting together a collection of contextual categories. Each of these categories tackles a different facet of the interaction between the instructor and the students, which plays a part in the formation of the educational environment that is found in the classroom. For the purpose of determining these categories, samples of student work and responses to questions on the engagement of the teacher were used.

10. References

1. Ginja, T. G., & Chen, X. (2020). Teacher Educators' Perspectives and Experiences towards Differentiated Instruction. *International Journal of Instruction*, 13(4), 781-798.
2. Herro, D., Visser, R., & Qian, M. (2021). Teacher educators' perspectives and practices towards the Technology Education Technology Competencies (TETCs). *Technology, Pedagogy and Education*, 30(5), 623-641.
3. Kim, C. M., Kim, M. J., Youn, H. S., & Jung, J. H. (2023). Exploring skills in observing teaching competency through video evaluation of class demonstrations by pre-service physical education teachers. *Sustainability*, 15(3), 2183.
4. McLain, M. (2021). Developing perspectives on 'the demonstration' as a signature pedagogy in design and technology education. *International Journal of Technology and Design Education*, 31(1), 3-26.
5. Tarmo, A., & Kimaro, A. (2021). The teacher education curriculum and its competency-based education attributes. *The Journal of Competency-Based Education*, 6(3), e01255.