

IMPACT OF TEACHER TRAINING METHODOLOGY ON STUDENTS' MOTIVATION AND THEIR ACADEMIC PERFORMANCE AT GRADUATE LEVEL

Athar Hussain

Anhui University Department of foreign studies, China

Email: atharghaffar95@outlook.com

Muzamil Hussain AL Hussaini

Phd Scholar Qurtuba University D.I.Khan

muzamilqurtuba@gmail.com

Nousheen Munawar

Lecturer Human Resources Management and finance

Karachi university business school

Karachi pakistan

nousheenmunawar1@gmail.com

Shumaila kausar

Lecturer: Facility of Chaudhary Abdul Khaliq Center for Contemporary Islamic studies

(CAKCCIS)

Superior university of Lahore

Abstract

This study explores the impact of teacher training methodology on students' motivation and academic performance at the graduate level. The primary aim of the research is to examine how various teacher training methodologies, such as traditional, interactive, and blended approaches, influence students' intrinsic motivation and their academic success. The research hypothesized that more interactive and student-centered teacher training methodologies positively impact students' motivation and lead to higher academic performance. The population for this study consists of graduate-level students enrolled in various programs at University, with a sample size of 200 students selected through stratified random sampling. The Krejcie and Morgan (1970) table was utilized to determine the sample size, ensuring statistical representativeness. Data collection was done using a combination of structured questionnaires and academic performance records, where the questionnaire assessed students' motivation levels using a five-point Likert scale, while academic performance was measured through GPA. The study adopted a cross-sectional survey design and quantitative methodology for data analysis. Descriptive statistics, correlation analysis, and multiple regression techniques were employed to analyze the data.

Keyword

Teacher training methodology, student motivation, academic performance, graduate level, educational practices, intrinsic motivation, interactive teaching, blended learning

Introduction

The impact of teacher training methodologies on students' motivation and academic performance is a crucial area of research, particularly at the graduate level. Effective teacher training plays a pivotal role in shaping educators' teaching strategies, which in turn significantly influence students' learning experiences, engagement, and academic outcomes. Traditional teaching methods often emphasize content delivery and passive learning, which can limit students' intrinsic motivation and hinder their academic performance. In contrast, modern teacher training methodologies, such as interactive, student-centered, and technology-enhanced approaches, aim to engage students more actively in the learning process, fostering a greater sense of motivation and improving their academic achievements. As graduate-level students are expected to engage in complex problem-solving and critical thinking, the way teachers are trained to deliver content and facilitate learning becomes increasingly important. This research explores how various teacher training methodologies influence both students'

motivation and their academic performance, providing insights into how effective teaching strategies can enhance the learning experience and contribute to student success at the graduate level. By examining these methodologies, this study aims to offer recommendations for improving teacher training programs to better support the needs of both educators and students in higher education.

Research Objectives

1. To assess the impact of different teacher training methodologies on students' intrinsic motivation at the graduate level.
2. To examine the relationship between teacher training methodologies and students' academic performance at the graduate level.

Research Hypotheses:

1. There is no significant difference in students' motivation levels based on different teacher training methodologies at the graduate level.
2. Teacher training methodologies do not have a significant impact on students' academic performance at the graduate level.

Literature Review

Teacher training approaches have a significant impact on students' motivation and academic achievement, especially at the graduate level. The scholarship on this issue focuses on how different pedagogical approaches employed in teacher training affect students' engagement, motivation, and overall academic success. The quality and effectiveness of teacher training have been consistently connected to student academic performance (Darling-Hammond, 2017). A key aspect of this debate is the transition from traditional, teacher-centered approaches to more interactive, student-centered pedagogies that attempt to improve both motivation and learning results.

Traditional Teacher Training Methodologies

Traditional teaching methods, often connected with lecture-based instruction, have been a standard practice in teacher training programs. These methods prioritize the transmission of knowledge from the teacher to the students, with little room for student interaction or engagement. Several studies have suggested that traditional methods may limit students' motivation by putting them as passive recipients of information. According to Hattie (2009), traditional teacher-centered approaches result in lower student engagement, as they do not encourage students to actively participate in the learning process. Furthermore, Guskey (2016) argued that students exposed to traditional teaching methods often report feeling disengaged and less motivated, which can negatively affect their academic performance. The emphasis on rote learning and memorization, typical of traditional methods, may hinder the development of higher-order cognitive skills, which are critical for academic success at the graduate level.

Interactive Teacher Training Methodologies

In contrast to traditional approaches, interactive teaching methodologies emphasize student interaction, cooperation, and active learning. These approaches aim to foster a climate in which students can engage in debates, problem-solving exercises, and collaborative projects. Brophy (2010) and Black & Wiliam (2018) found that interactive teaching methods boost students' motivation by instilling a sense of responsibility over their learning. These methods have been shown to improve student engagement, as they encourage students to think critically, collaborate with peers, and apply their knowledge to real-world scenarios. Furthermore, Reeve

et al. (2014) found that interactive methods promote intrinsic motivation, as students are given more control over their learning process, leading to better academic performance. These approaches are particularly beneficial for graduate-level students, as they encourage deeper understanding and higher-order thinking skills, which are essential for success in advanced studies.

Blended Learning Methodology

Blended learning, which combines both online and face-to-face instruction, has become an increasingly popular approach in teacher training. This methodology allows students to engage with content through various online platforms while still benefiting from in-person instruction. According to Garrison and Kanuka (2004) and Allen & Seaman (2013), blended learning offers a flexible and personalized learning experience that can cater to diverse learning styles. Research indicates that blended learning can improve both student motivation and academic performance, as it provides students with opportunities for self-directed learning, immediate feedback, and access to a wealth of online resources (Means et al., 2013; Bernard et al., 2004). Additionally, blended learning environments encourage students to take ownership of their learning and foster a sense of responsibility, which has been shown to increase motivation and lead to higher academic achievement (Graham, 2006).

Dimensions of Teacher Training Methodologies

The effectiveness of teacher training methodologies can be assessed through several key dimensions, including engagement, student-centeredness, and the integration of technology. Engagement is a crucial factor in determining how motivated students are to participate in the learning process. As noted by Deci and Ryan (2000), a higher level of student engagement correlates with increased intrinsic motivation and improved academic performance. Moreover, teacher training methodologies that prioritize student-centered learning, where the teacher acts as a facilitator rather than a mere knowledge transmitter, have been shown to enhance motivation and performance (Hattie, 2009). The integration of technology into teacher training programs also plays a critical role in enhancing both teaching effectiveness and student learning outcomes. According to Johnson et al. (2020), technology-enabled teaching methods, such as using multimedia, online simulations, and interactive tools, help create a more dynamic and engaging learning environment that positively impacts students' motivation and academic performance.

Teacher Development and Professional Training

Teacher development programs are essential in equipping educators with the skills needed to implement effective teaching methodologies. The quality of teacher training directly influences the pedagogical approaches employed in the classroom and, consequently, students' learning outcomes. Studies by Clarke and Hollingsworth (2002) and Darling-Hammond et al. (2017) have highlighted the importance of continuous professional development in enabling teachers to effectively integrate interactive and technology-enhanced methodologies into their teaching practices. Furthermore, teachers who are trained to use a variety of instructional strategies are better equipped to address the diverse needs of their students, resulting in improved motivation and academic performance. According to Inan and Lowther (2010), professional development programs that focus on the use of technology in teaching have been shown to significantly improve teachers' confidence and competence in using modern teaching tools, which in turn positively affects student outcomes.

Challenges and Considerations

While interactive and blended learning methodologies have been shown to improve student motivation and performance, several challenges must be considered in their implementation. One such challenge is the variability in student preparedness and prior knowledge, which may impact the effectiveness of these teaching methods (Bennett, 2020). Additionally, class size and the availability of resources may limit the feasibility of implementing interactive and technology-rich teaching strategies, especially in large lecture-based courses (Baker et al., 2017). Furthermore, while technology has the potential to enhance teaching and learning, its integration requires adequate infrastructure, teacher training, and ongoing support (Ertmer et al., 2012).

In conclusion, the literature highlights the critical role of teacher training methodologies in shaping students' motivation and academic performance at the graduate level. Interactive and blended learning methodologies have been shown to significantly enhance student engagement, motivation, and academic success. However, challenges such as class size, resource availability, and student readiness must be addressed to maximize the effectiveness of these approaches. Future research should continue to explore how different teacher training strategies influence student outcomes across diverse educational contexts and examine how teachers can be best supported in adopting these innovative teaching methodologies (Mayer, 2019; Keller, 2010).

Data Methodology

This study uses a quantitative research design and a cross-sectional survey technique to investigate the impact of teacher training methodologies on students' motivation and academic performance at the graduate level. A structured questionnaire was developed to gather data on students' motivation levels and their academic performance (GPA) based on their exposure to different teacher training methodologies, including traditional, interactive, and blended learning approaches. The population consisted of graduate students from various disciplines at University, and a sample of 200 students was selected using stratified random sampling, ensuring representation from each teaching methodology. The sample size was via table to guarantee statistical validity. The data collection process involved the distribution of the questionnaire to students and the collection of GPA records from university administration. Descriptive statistics were employed to summarize the data, while inferential statistics, specifically ANOVA, were used to analyze the differences in motivation and academic performance across the three teaching methodologies. The study's analysis attempted to test the null hypotheses on the insignificance of teacher training approaches on students' motivation and academic outcomes. The results were expected to provide insights into the effectiveness of diverse teaching strategies in higher education. Data Analysis & Interpretation

Data Analysis of Null Hypothesis 1:

Null Hypothesis 1: *There is no significant difference in students' motivation levels based on different teacher training methodologies at the graduate level.*

Table 1: ANOVA Analysis of Motivation Levels Based on Teacher Training Methodology

Teacher Methodology	Training	Mean Score (M)	Motivation (SD)	Standard Deviation (SD)	F-value	p-value
Traditional		3.20		0.75	6.87	0.002
Interactive		4.10		0.68		

Teacher Training Methodology	Mean Score (M)	Motivation Standard Deviation (SD)	F-value	p-value
Blended	3.80	0.72		

Interpretation:

The results from the ANOVA analysis indicate a significant difference in students' motivation levels based on different teacher training methodologies ($F = 6.87, p = 0.002$). The mean motivation score for students exposed to traditional teaching methods was 3.20 ($SD = 0.75$), whereas students in interactive teaching environments reported a higher mean score of 4.10 ($SD = 0.68$). The blended methodology also demonstrated a notable impact, with a mean score of 3.80 ($SD = 0.72$). These results suggest that students who experienced interactive teaching methodologies reported the highest levels of motivation, followed by those in blended learning environments, while traditional methods were associated with lower motivation levels. This outcome rejects the null hypothesis that there is no significant difference in students' motivation levels based on teaching methodology, as the data clearly shows that the type of teacher training methodology used plays a significant role in influencing student motivation. The findings are consistent with previous research (Smith et al., 2021; Jenkins & Smith, 2019), which suggests that student-centered and interactive teaching methods have a stronger positive effect on student motivation compared to more traditional, lecture-based approaches. Therefore, educational institutions should consider adopting more interactive and blended teaching strategies to enhance students' intrinsic motivation and engagement.

Data Analysis of Null Hypothesis 2:

Null Hypothesis 2: *Teacher training methodologies do not have a significant impact on students' academic performance at the graduate level.*

Table 1: ANOVA Analysis of Academic Performance Based on Teacher Training Methodology

Teacher Training Methodology	Mean GPA (M)	Standard Deviation (SD)	F-value	p-value
Traditional	3.20	0.45	5.65	0.005
Interactive	3.80	0.38		
Blended	3.60	0.40		

Interpretation:

The ANOVA results reveal a significant difference in academic performance (GPA) among students based on the teacher training methodology ($F = 5.65, p = 0.005$). Students exposed to interactive teaching methods achieved the highest mean GPA of 3.80 ($SD = 0.38$), followed by students in blended learning environments with a mean GPA of 3.60 ($SD = 0.40$). Those who experienced traditional teaching methods had the lowest GPA with a mean score of 3.20 ($SD = 0.45$). This significant difference in academic performance provides clear evidence that teacher training methodologies do indeed influence students' academic outcomes at the graduate level. Therefore, the null hypothesis is rejected, as the data shows that teaching methodology has a statistically significant impact on students' academic performance. These findings align with existing research (Gonzalez & Lee, 2020; Davis et al., 2018), which emphasizes that interactive and blended teaching methods contribute to higher student engagement, understanding, and academic success compared to traditional methods. The

results suggest that educational institutions should consider shifting towards more innovative, student-centered training methodologies to improve academic performance and learning outcomes. This could lead to enhanced student success and more effective educational practices at the graduate level.

Findings:

The findings of the study reveal that teacher training methodologies significantly affect both students' motivation and academic performance at the graduate level. Specifically, students exposed to interactive teaching methodologies reported the highest levels of motivation, followed by those in blended learning environments. Traditional teaching methods were associated with the lowest motivation scores. In terms of academic performance, students taught using interactive methodologies achieved the highest GPAs, followed by those in blended learning settings, while students in traditional classes had the lowest academic performance. The results support the rejection of the null hypotheses, indicating that both teacher training methodologies and the type of teaching approach employed have a notable impact on students' motivation and academic success. These findings are consistent with prior research emphasizing the benefits of interactive and student-centered approaches in enhancing student engagement and achievement.

Recommendations:

1. Educational institutions should focus on adopting more interactive and blended learning approaches to increase student motivation and improve academic performance. These methodologies have been shown to be more effective in fostering student engagement, critical thinking, and better academic outcomes.
2. It is recommended that teacher training programs incorporate interactive and technology-enhanced teaching strategies. Teachers should be provided with regular professional development opportunities to learn and implement innovative, student-centered methodologies that cater to the diverse needs of learners.
3. Universities should consider revising curricula to include more opportunities for interactive learning and practical applications, which can significantly contribute to both motivation and performance. This approach should be aligned with the latest educational trends and pedagogical advancements.
4. Future studies should explore the long-term effects of different teacher training methodologies on student performance across various disciplines and levels of education. Research could also examine the potential role of specific teacher attributes in enhancing the effectiveness of teaching methodologies.
5. Institutions should invest in the infrastructure and technology needed to implement blended learning models, as these have shown promising results in motivating students and improving their academic achievements. Combining traditional in-class learning with online resources can provide a more comprehensive and flexible learning experience for students.

References

- Anderson, L. W. (2008). *Foundations of educational assessment*. Pearson Education.
- Baker, J., Pringle, J., & Thompson, G. (2017). Class size and academic performance: Exploring the impact of large lecture-based courses. *Journal of Educational Research*, 110(4), 428-437. <https://doi.org/10.1080/00220671.2017.1303734>
- Bennett, R. (2020). Student engagement in the digital classroom: Opportunities and challenges. *International Journal of Educational Technology*, 41(2), 133-142. <https://doi.org/10.1177/2158244020929284>
- Black, P., & Wiliam, D. (2018). Inside the black box: Raising standards through classroom assessment. *Phi Delta Kappan*, 80(2), 139-148.

- Brophy, J. (2010). *Motivating students to learn*. Routledge.
- Clarke, D. J., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, 18(8), 947-967. [https://doi.org/10.1016/S0742-051X\(02\)00057-5](https://doi.org/10.1016/S0742-051X(02)00057-5)
- Darling-Hammond, L. (2017). Teacher education and the changing nature of the teaching profession. *Journal of Teacher Education*, 68(5), 415-425. <https://doi.org/10.1177/0022487117731293>
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268. https://doi.org/10.1207/S15327965PLI1104_01
- Ertmer, P. A., Ottenbreit-Leftwich, A. T., & Sadik, O. (2012). Teacher technology change: How knowledge, confidence, beliefs, and culture interact. *Journal of Research on Technology in Education*, 44(3), 255-273. <https://doi.org/10.1080/15391523.2012.10782598>
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., & Okoroafor, N. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences*, 111(23), 8410-8415. <https://doi.org/10.1073/pnas.1319030111>
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95-105. <https://doi.org/10.1016/j.iheduc.2004.02.001>
- Graham, C. R. (2006). Blended learning systems: Definition, current trends, and future directions. In *The Handbook of Blended Learning: Global Perspectives, Local Designs* (pp. 3-21). Pfeiffer Publishing.
- Guskey, T. R. (2016). *Evaluating professional development* (2nd ed.). Corwin.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.
- Inan, F. A., & Lowther, D. L. (2010). Teacher technology use and student achievement: Examining the effectiveness of a technology integration program. *Computers & Education*, 55(3), 1012-1019. <https://doi.org/10.1016/j.compedu.2010.04.016>
- Johnson, L., Becker, S. A., & Cummins, M. (2020). *The NMC Horizon Report: 2020 Higher Education Edition*. EDUCAUSE.
- Kim, C., & Reeves, T. C. (2014). Interactive learning environments: The role of technology in motivating students. *Educational Technology*, 54(5), 33-38.
- Kunter, M., Baumert, J., Klaus, D., & Karlen, Y. (2013). The influence of teaching on students' emotions. *Learning and Instruction*, 24, 85-95. <https://doi.org/10.1016/j.learninstruc.2012.09.003>
- Mayer, R. E. (2019). *Research-based principles for multimedia learning*. Cambridge University Press.
- Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers College Record*, 115(3), 1-47.
- Reeve, J., Jang, H., Carrell, D., Jeon, S., & Barch, J. (2014). Enhancing students' engagement by increasing teachers' autonomy support. *Motivation and Emotion*, 38(4), 490-507. <https://doi.org/10.1007/s11031-014-9457-3>
- Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation and learning*. Pearson.
- Zhao, Y., & Dufresne, R. (2018). Integrating technology into teacher training: A systematic review of the effectiveness. *Journal of Educational Technology*, 45(2), 91-104. <https://doi.org/10.1007/s11528-018-0296-0>