QLANTIC JOURNAL OF SOCIAL SCIENCES

Effect of Simulated Teaching on Prospective Teachers' Communication Skills at Undergraduate Level

Sadia Jabeen [1]   Mehwish Gull [2]

Abstract: *The present study aimed to examine the effect of simulated teaching on prospective teachers' communication skills at the undergraduate level. The present study adopted the A-B-A single-subject research design. The study population consisted of all prospective teachers from the Department of Education at the University of Lahore. The study sample was comprised of eighteen students from B. Ed. (Hons) elementary semester six. The experiment consisted of sixteen weeks, during which the researcher observed prospective teachers during practice teaching. The observation checklist was developed to check the prospective teachers' communication skills in the actual classroom setting. Inferential statistics was used to analyze the data. A one-way repeated measures ANOVA was used to determine the significant effect of simulated teaching during the experiment and withdrawal phase. The findings of the present study concluded that simulated teaching had a significant effect during the treatment and withdrawal phase. Prospective teachers enhanced their communication skills through simulation during practice teaching. The study recommended enhancing prospective teachers' communication skills by employing simulating teaching techniques at the undergraduate level.*

Key Words: Simulated Teaching, Communication Skills, Prospective Teachers, Undergraduate Level

Introduction

Education has an essential influence on developing skills and behavior. It promotes a beneficial transformation in the social, political, and cultural aspects of individuals to meet societal needs. Nations prioritize the preparation of teachers as an occupation due to its sensitive, demanding, and critical nature in achieving educational objectives. This may elevate the nation and promote progress inside the country (Ghavifekr & Rosdy, 2015).

Katitia (2015) maintains that contemporary classrooms change significantly from those of fifteen or even five years prior. The students are maturing in a rapidly evolving digital environment, thereby augmenting the teachers' responsibilities in the classroom. In this modern era, teachers encounter a variety of student attitudes and requirements in large classrooms. It is necessary to enhance the quality of classroom management capabilities among prospective teachers. They urged that attention be focused on the provision of effective professional development for teachers in classroom management, involving teachers, researchers, and educational institutions to fulfill academic criteria in teacher education. Numerous nations have acknowledged this deficiency in teacher education and are implementing various measures to enhance the effectiveness of their educators in the classroom.

Review of Related Literature

Modern teacher training has involved the exploration and development of novel teaching approaches and instructional tactics. In these pedagogical approaches, virtual teaching becomes increasingly challenging. They moreover asserted that simulated education has been acknowledged for the last two decades as an efficient and effective method for imparting complex and dynamic skills. It offers a framework for

---

[1] PhD Scholar, Department of Education, Faculty of Social Sciences, The University of Lahore, Punjab, Pakistan. Email: sadia.jabeen@ed.uol.edu.pk

[2] Assistant Professor, Department of Education, Faculty of Social Sciences, The University of Lahore, Punjab, Pakistan. Email: mehwish.gull@ed.uol.edu.pk

cultivating specific skills and behaviors in aspiring teachers through experiential practice by assuming the position of teacher within their own group, simulating a classroom environment.

Simulations offer a genuine, secure setting for instructors to investigate various educational methodologies, engage in repetitive practice, observe the outcomes of their pedagogical decisions, obtain rapid feedback, and cultivate and refine emerging skills without any hazards to students. Simulations can be tailored and adaptable to develop particular abilities, providing a broader range of learning opportunities for newly recruited teachers.

Presnilla-Espada (2014) stated that simulated teaching is a pedagogical training method employed in teacher education to bridge the divide between theory and practice. Maheshwari (2022) asserted that simulated teaching effectively cultivates complicated behavioral competencies in instructors during teacher training, including communication, time management, and authoritative skills. Sharma (2017) asserted that prospective teachers should undergo training in simulated circumstances prior to their formal teaching practice in schools, as it enhances teaching skills and alleviates stress (Mukhtar et al., 2018).

Simulated teaching is an innovative pedagogical approach conducted in a controlled environment, allowing students to learn through observation and practical engagement rather than through conventional listening methods. It can be characterized as a non-computer-generated simulation in the format of a role play, enabling prospective teachers to adopt the roles of a teacher, students, and observer. Simulated teaching is referred to by various labels, including live-action role-play, artificial teaching, pilot training, laboratory method, clinical method, and inductive scientific approach (Presnilla-Espada, 2014).

Simulated teaching is a synthetic training method for instructors that enables prospective teachers to acquire the skills and strategies of instruction, classroom management, and communication through role-playing. This experiential learning, or "learning by doing," is influenced by John Dewey's (1916) philosophy of learning via action. It has historically influenced the culture of apprenticeships, which is closely associated with student learning (Heim, 2016).

The philosophy of simulated teaching is grounded in pragmatism, emphasizing the practical application of ideas through active engagement to critically assess them within human experiences. The pragmatists provide achievable benchmarks akin to simulated instruction. Similarly, pragmatism in virtual education addresses challenges and seeks to resolve them from a practical and rational perspective (Chen & Martin, 2015). The core notion of pragmatism is similar to an activity resembling a simulation. Pragmatism fervently supports the experimental approach. It embraces all that possesses practical utility. They contend that philosophy emerged from pedagogical activities. It constitutes a comprehensive practical and utilitarian philosophy (Sharma, 2017).

Communication Skills

Communication skills are essential for delivering a lesson or lecture in a classroom setting. The communication skills of instructors are as crucial as their comprehensive understanding of the subject matter they teach. Communication fundamentally involves the contact and exchange of emotions and thoughts with others. It is the optimal method for receiving, providing, and exchanging information, extensively utilized in the corporate and professional sectors. This expertise is beneficial not only in the professional realm but also applicable in nearly every aspect of life. Effective communication skills can resolve even the most significant situations. Educators must recognize the significance of communication skills in instruction and classroom management. They must also acknowledge that all kids possess varying degrees of talents and weaknesses. A teacher can only present innovative and effective answers to student issues through communication skills. Consequently, a teacher can improve the learning process by employing good communication skills (Khan et al., 2017).

Typically, two forms of communication have been employed in the classroom. Verbal communication pertains to the spoken words within the communication process. Communication may occur either in person, over the telephone, or through voice chat online. Verbal exchanges or dialogues are affected by voice modulation, pitch, volume, as well as the pace and clarity of articulation. These skills entail understanding language to select appropriate words that effectively express meaning to the audience.

Verbal aptitude pertains to the capacity to arrange words logically. Verbal ability constitutes a component of conventional IQ assessment. The second category, non-verbal communication (NVC), pertains to the speaker's body language, encompassing body posture, hand gestures, and total bodily motions. Facial expressions significantly contribute to communication, as they convey substantial information regarding an individual's mood. Conversely, gestures such as a handshake, grin, or embrace can independently express emotions. Non-verbal communication may also emerge as pictorial representations, signboards, photographs, sketches, and paintings.

Statement of the Problem

Classroom management skills have been highlighted in numerous research studies as a major variable that affects the learning process at the national and international levels. It has also been discussed extensively at educational seminars and workshops, with efforts aimed at bringing lasting solutions to the challenges teachers face in classrooms. To overcome the fear of an un-conducive classroom environment that poses serious problems to the teaching-learning process because it has increased on a daily basis and is a threat to the educational system. Furthermore, this literature emphasizes skilled teachers' preparation to cope with the realities of the 21st-century classroom. They must have the skill to understand the needs of students and the classroom on a regular basis, and they can use class time, verbal and non-verbal communication, and authority skills accordingly (Ahmed & Ambreen, 2018). Teachers have weak professional skills, especially in communication skills. Therefore, the present study was conducted to develop the prospective teachers' communication skills through simulated teaching at the undergraduate level.

Objective of the Study

The objective of the present study was to examine the effect of simulated teaching on prospective teachers' communication skills at the undergraduate level.

Hypotheses of the Study

H_{01}: There is no significant effect of simulated teaching on prospective teachers' communication skills during the experiment.

H_{02}: There is no significant effect of simulated teaching on prospective teachers' communication skills during the withdrawal phase.

Methodology

The present study aimed to examine the effect of simulated teaching on prospective teachers' communication skills at the undergraduate level. The present study employed the A-B-A single-subject research design. The study population consisted of all prospective teachers from the Department of Education at the University of Lahore. The study sample was comprised of 18 students from B. Ed. (Hons) Elementary 6th Semester. The experiment consisted of 16 weeks, during which the researcher observed prospective teachers during teaching practice. The observation checklist was used to check the PT's communication skills in an actual classroom setting. Inferential statistics was used to analyze the data. A one-way repeated measures ANOVA was used to determine the significant effect of simulated teaching before, during, and after the treatment of the experimental group.

Intervention

Three phases were involved in implementing this A-B-A design. First, in phase A, the researcher established a baseline that was also used as a dependent variable (prospective teachers' practice about communication skills). The researcher conducted multiple observations during teaching practice of the 5th semester to get the average that creates a baseline on line-graph. This was the level of response before any treatment. It was introduced as the baseline phase, a kind of control condition that was provided a comparison after treatment.

Phase B started with intervention. There were two steps involved in implementing the treatment. In the first step, the researcher implemented simulated teaching during the lecture. During teaching, the

researcher practiced the selected communication skills. It provided an observation to prospective teachers about how to implement and practice communication skills in the classroom. At the second stage of treatment, prospective teachers practiced communication skills through role-play. During role-play, prospective teachers practiced the selected classroom management skills in an artificial classroom environment under the researcher's supervision and feedback. The researcher conducted the observations during the role-play performance.

Third phase A was started after treatment was withdrawn. When prospective teachers were gone for teaching practice in a real school environment in the baseline period. The researcher conducted observations during the withdrawal phase. The researcher took three observations of each prospective teacher. The average of the observations was drawn online graphs to show the effects of a particular intervention or treatment. Data were analyzed using repeated measures ANOVA during the baseline period, treatment phase, and withdrawal phase during the experiment.

Results

Table 1
Mauchly's Test of Sphericity for Simulated Teaching of Prospective Teachers' Communication Skills during Baseline

Within Subject Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser (Epsilon[b])
MAI	.881	2.025	17	.363	.894

Mauchly's sphericity test was performed to assess the validity of the repeated measures of the Analysis of Variance (ANOVA). As the significance value **(p = .363)** exceeds the critical threshold of **0.05**, it suggests that there were no significant differences among the variances of differences.
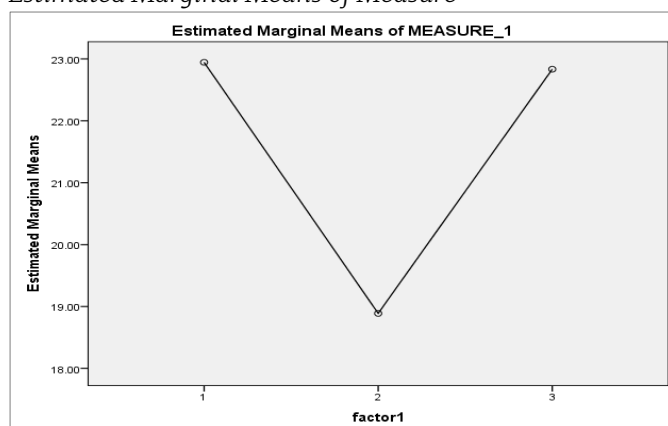
Table 2
The Effect Simulated Teaching of Prospective Teachers' Communication Skills during Baseline across Three Steps of Intervention

Measures	Baseline Period		
	N	Mean	SD
Observation 1	18	22.94	.752
Observation 2	18	18.88	.582
Observation 3	18	22.83	.821
F	1892.93		
df	17		
Sig.	.363		
Partial Eta squared	.991		

The results in Table 2 indicate that the effect of simulated teaching on prospective teachers' communication skills was **F (1892.93), p = .363**, which is greater than the significance level of **0.05**. The results were insignificant during baseline.

Figure 1
Estimated Marginal Means of Measure

H$_{01}$: There is no significant effect of simulated teaching on prospective teachers' communication skills during the experiment.

Table 3
Mauchly's Test of Sphericity for Simulated Teaching of Prospective Teachers' Communication Skills During Experiment

Within Subject Effect	Mauchly's W	Approx. Chi–Square	df	Sig.	Greenhouse–Geisser (Epsilon[b])
MAI	.309	18.091	17	.000	.665

Mauchly's sphericity test was conducted to validate a repeated measures Analysis of Variance (ANOVA). Since the significance value **(p = .000)** is less than the critical value of **0.05**, it indicates that significant differences exist between the variances of differences.
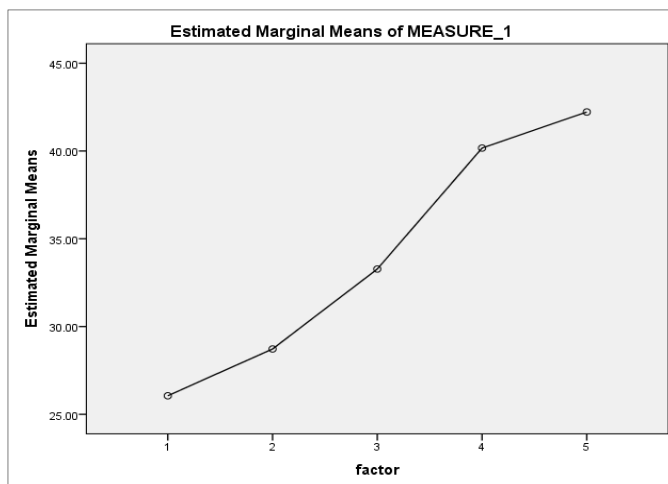
Table 4
The Effect of Simulated Teaching of Prospective Teachers' Communication Skills During Experiment across Five Steps of Intervention

Measures	Baseline Period		
	N	Mean	SD
Observation 1	18	26.05	3.65
Observation 2	18	28.72	5.90
Observation 3	18	33.27	6.20
Observation 4	18	40.16	4.30
Observation 5	18	42.22	4.35
F	1823.73		
df	17		
Sig.	.000		
Partial Eta squared	.991		

The results in Table 4 indicate that the effect of simulated teaching on prospective teachers' communication skills is significant, **F(1823.73), p = .000 < .05 significance level**. Therefore, hypothesis H$_{01}$, stating that *"There is no significant effect of simulated teaching on prospective teachers' communication skills during the treatment,"* is rejected. It is concluded that simulated teaching has a significant effect on improving prospective teachers' communication skills.

Figure 2
Estimated Marginal Means of Measure

H$_{02}$: There is no significant effect of simulated teaching on prospective teachers' communication skills during the withdrawal phase.

Table 5

Mauchly's Test of Sphericity for Simulated Teaching of Prospective Teachers' Communication Skills During Withdrawal Phase

Within Subject Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser (Epsilon[b])
MAI	.762	4.355	17	.000	MAI

Mauchly's sphericity test was conducted to validate the Repeated Measures Analysis of Variance (ANOVA). Since the significance value (.000) is less than the critical value (0.05), it indicates that there are significant differences between the variances of differences.

Table 6

The Effect Simulated Teaching of Prospective Teachers' Communication Skills during Withdrawl Phase across Three Steps of Intervention

Measures	Baseline Period		
	N	Mean	SD
Observation 1	18	42.05	4.68
Observation 2	18	46.61	3.05
Observation 3	18	47.83	2.81
F	5923.604		
Df	17		
Sig.	.000		
Partial Eta squared	.997		

Table 6 indicates that simulated teaching has a significant effect on prospective teachers' communication skills, with F (5923.604) and p = .000, which is less than .05 at the significance level. Therefore, the null hypothesis H_{02}, stating that "There is no significant effect of simulated teaching on prospective teachers' communication skills during the withdrawal phase," is rejected. This confirms that simulated teaching significantly improves teachers' communication skills.

Figure 3

Estimated Marginal Means of Measure

Estimated Marginal Means of MEASURE_1
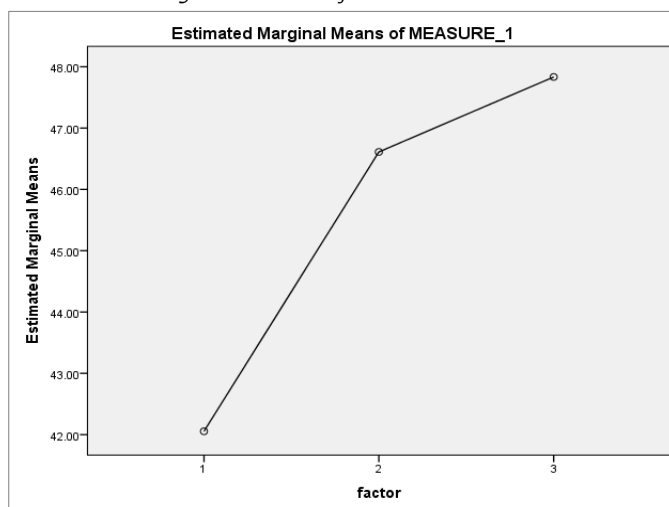
Discussion

The present study aimed to examine the effect of simulated teaching on prospective teachers' communication skills at the undergraduate level. Simulated teaching might be one of the most successful techniques for preparing teacher education students for a complete field teaching experience (Salas et al., 2009). It provides prospective teachers with an opportunity to apply their knowledge, skills, and competencies in a structured and risk-free environment (Moreno & Mayer, 2007). This experience

enhances their confidence and proficiency in teaching (Salas et al., 2009). The findings of the present study indicate that simulated teaching had no significant impact on prospective teachers' communication skills during the baseline period; it showed a significant effect during the treatment and withdrawal phases. Consequently, students often enter the academic field with deficiencies in communication skills, classroom management, and instructional delivery (Ferber & Nillas, 2010). When prospective teachers step into the classroom, they often exhibit uncertainty and self-doubt regarding their teaching abilities and competence. A lack of confidence can make them more likely to learn from challenges and, over time, leave the profession altogether. Essential teaching skills such as lesson planning, classroom management, and communication are behavioral in nature and cannot be fully developed through knowledge-based training alone. These skills are best acquired through hands-on practice (Salas et al., 2009).

While traditional lecture-based and paper-based methods effectively convey factual and conceptual knowledge, student teaching experience remains the most influential factor in learning how to teach (Caires & Almeida, 2007). Empirical evidence suggests that students should actively participate in the learning process from the early years, well before their practicum, and that learning should take place in meaningful, real-world contexts (Moreno & Mayer, 2007). From this perspective, simulation emerges as a powerful tool for creating immersive, experiential learning environments, helping educational institutions meet the evolving demands of teacher training (Bell et al., 2008).

Recommendations

The following are the recommendations of the present study.

1. The study findings concluded that simulated teaching has a significant effect on students' communication skills. Therefore, it is recommended that simulated teaching in class be used to develop communication skills among prospective teachers.
2. The lack of consistency in training students may have caused a delay in developing the target communication skills. It is therefore suggested that training in mentoring and adapting simulated teaching in their respective classrooms be conducted.
3. The effect of simulated teaching on students' performance might be done at the elementary, secondary, and higher secondary levels to improve students' communication skills.

References

Ahmed, M., & Ambreen, M. (2018). Gender differentials among teachers' classroom management strategies in Pakistani context. *Journal of Education and Educational Development, 5*(2), 178-198. http://dx.doi.org/10.22555/joeed.v5i2.2253

Bell, B. S., Kanar, Adam M., & Kozlowski S. W. J. (2008). *Current issues and future directions in simulated-based training. CAHRS Working Paper #08-13).* Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies. http://digitalcommons.ilr.cornell.edu/cahrswp/492.

Caires, S., & Alemeida, L. S. (2007). Positive aspects of the teacher training supervision: The student teachers' perspective. *European Journal of Psychology of Education, 22*(4), 515-528. https://doi.org/10.1007/BF03173469

Chen, J. C., & Martin, A. R. (2015). Role-play simulations as a transformative methodology in environmental education. *Journal of Transformative Education*, *13*(1), 85–102. https://doi.org/10.1177/1541344614560196

Chien, C. W. (2014). Pre-service elementary school English teachers' learning and reflection through simulated teaching practice and oral interviews. *Reflective Practice, 15*(6), 821-835. https://doi.org/10.1080/14623943.2014.944139

Ferber, T., & Nillas, L. (2010). Through the eyes of student teachers: successes and challenges in field teaching experiences. *National Teacher Education Journal, 3*(2), 61-86.

Ghavifekr, S., & Rosdy, W. A. W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science, 1*(2), 175-191. http://doi.org/10.21890/ijres.23596

Heim, E. (2012). Simulation-based learning in education and further education. *Central European Business Review, 1*(2), 59–59. https://doi.org/10.18267/j.cebr.23

Katitia, D. M. O. (2015). Teacher education preparation program for the 21st century: Which way forward for Kenya? *Journal of Education and Practice, 6*(24), 56-67. http://kerd.ku.ac.ke/123456789/541

Khan, A., Khan, S., Zia-Ul-Islam, & Khan, M. (2017). Communication skills of a teacher and its role in the development of the students' academic success. *Journal of Education and Practice, 8*(1), 18-21. https://files.eric.ed.gov/fulltext/EJ1131770.pdf

Moreno, R., & Mayer, R. E. (2007). Interactive multimodal learning environments. *Educational Psychology Review, 19*, 309-326. https://doi.org/10.1007/s10648-007-9047-2

Maheshwari, G. (2022). Influence of teacher-perceived transformational and transactional school leadership on teachers' job satisfaction and performance: a case of Vietnam. *Leadership and Policy in Schools*, *21*(4), 876-890. https://doi.org/10.1080/15700763.2020.1866020

Mukhtar, M. A., Hasim, Z., & Md Yunus, M. (2018). The efficacy of simulated teaching in preparing pre-service teachers for practicum. *Journal of Nusantara Studies*, *3*(1), 64. https://doi.org/10.24200/jonus.vol3iss1pp64-74

Presnilla-Espada, J. (2014). An exploratory study on simulated teaching as experienced by education students. *Universal Journal of Educational Research, 2*(1), 51-63. http://doi.org/10.13189/ujer.2014.020106

Salas, E., Wildman, J. L., & Piccolo, R. F. (2009). Using simulation-based training to enhance management education. *Academy of Management Learning & Education, 8*(4), 559-573. http://doi.org/10.5465/AMLE.2009.47785474

Sharma, G. (2017). Simulated teaching: A pragmatic approach in teaching of home science. *IJRHAL, 5*(6), 163-168. http://www.impactjournals.us/archives/2-11-1498721645-19.pdf