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Exploring the Challenges Faced by Pre-Service Teachers during Internships in a Blended Learning Environment

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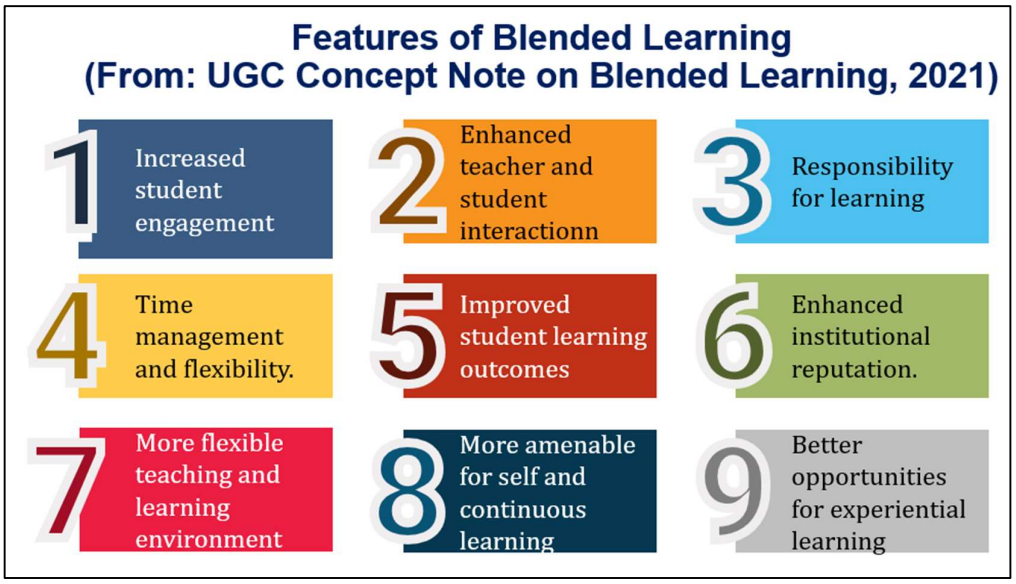
Abstract
Blended Learning Environments provide the ultimate flexibility in learning for students (UGC concept note on Blended Learning, 2021). The main objective of the present research work was to study the challenges faced by pre-service teachers while learning school internship in a B.Ed. program through blended learning. This research work was based on the descriptive survey method. 75 pre-service teachers were selected as a sample through the purposive sampling technique. A self-made 'blended learning approach challenge questionnaire' was used to collect research-related data. Based on the results of the data analysis, it was found that pre-service teachers faced various types of technical, social, and psychological problems while learning through blended learning.
Key Words: Pre-Service Teachers, Blended Learning Approach

Introduction

UGC in its concept note on blended learning identified blended learning as an approach that provided the ultimate flexibility to the learners. Figure 1 summarizes the important features of the blended learning environment as given in the UGC concept note.

Figure 1: Features of Blended Learning from UGC Concept Note on Blended Learning, 2021



Blended learning is a combination of online and traditional classroom learning, combining technology for enhanced training and teaching. It requires educators and students to have the necessary skills to use online technologies. The goals, strategies, and methods of instruction should be well-defined, and learning materials should be varied to cater to different learning styles. Instructors should be available at the appropriate times to address student questions, whether online or in-person (Robinson, 2004). Research studies suggest that the careful application of ICTs in education, particularly blended learning, has significant implications for higher education, as evidence suggests that students taking hybrid courses often perform better than those enrolled in entirely online or offline courses (Means, *et al.*, 2009). With fewer running expenses, blended learning creates new and fantastic opportunities to improve the standing of higher education institutions (Al- Ghamdi, 2011). Higher education is increasingly utilizing blended learning as a strategic strategy to enhance student success, as evidenced by significant advancements in theoretical studies from 1996 over the past decade (Means, *et al.*, 2009 and Alammary, *et al.*, 2014). To design a blended course effectively, it's crucial to establish clear learning objectives and goals. Blended learning can enhance teaching quality, but understanding technology integration is essential for achieving pedagogical goals and providing optimal teaching-learning experiences. Aligning goals and objectives at the institutional level ensures administrative advantages and high-quality instruction, maximizing administrative advantages.(Moskal *et al.*, 2013 and Owston, 2013).

Models of Blended Learning

There are four models of blended learning (Staker & Horn, 2012). Figure 2, is from Staker and Horn, 2012) where traditional instruction, technologically rich instruction, informal online education and an fully online education is mapped to prevalent educational practices. It is important to note that the learning experience of the student is neither mutually exclusive nor collectively exhaustive of the various types of educational experiences that a learner has in today's times. It is quite possible that a learner might attend a physical school (brick and motor) and yet use YouTube channels to learn and gain clarity in concepts being taught in the classroom.

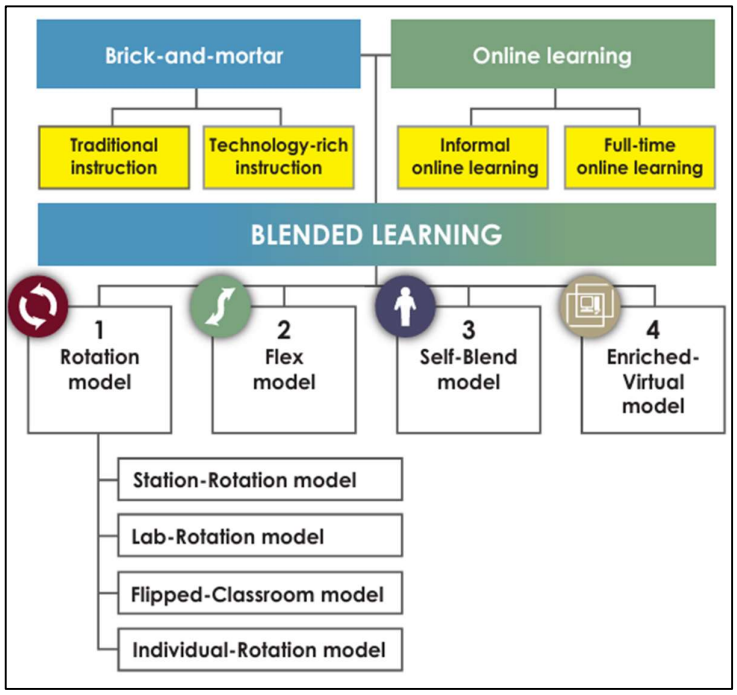


Figure 2: Blended Learning juxtaposed with other educational initiatives from Staker and Horn, 2012

- **Rotational model:** The rotational approach, which includes individual, flipped, station, and lab rotations, is primarily focused on school learning, allowing students to receive most instruction in a traditional classroom, with additional support available through an online portal. In the rotational model students rotate from one position to the next. In the station rotation students move from one station (place of learning a particular skill or subject) to another. In the blended model one station is always an online module. In the lab rotation model, the learning lab is generally an online module that student's access. In the flipped classroom, the primary modality of instruction is via an online mode, followed by classroom interactions and discussions. In the individual rotation model, the students choose their rotation pattern based on the individual requirements.
- **Flex model:** The Flex model focuses on online learning as a student's strongest learning area, providing flexible, on-demand education with instructors who assist students in completing course material, allowing them significant control over their education.
- **Self-blended model:** This self-directed course, primarily delivered online, offers self-blended material that can be completed at various levels both inside and outside the classroom.
- **Enriched virtual model:** In this model, students gain maximum learning experience via the online mode, followed by the brick and motar experience. Blended learning is a flexible approach that allows students to complete most of their coursework at home using online resources while still attending in-person instructor instruction. This method allows students to complete their coursework in a more flexible manner, reducing the need for daily class attendance.

Research Question

Given the UGC directive of incorporating blended learning approaches within the university curriculum, many teacher education departments are allowing students to augment their knowledge by using the blended approach. In the present study, the pre-service teachers used the blended approach to augment their microteaching skills along with the other skills that formed a part of their pre-internship training. Based on this, the research question was formulated as :

- What are the challenges/hardships that Internees experienced while using the blended learning approach during the Internship in Teaching Program?

Research Method and Research Procedure

The nature of the presented research work was descriptive, and therefore the survey research method was used. With the help of survey research method, the current attitudes or practices of the sample selected in the research work can be known (Creswell, 2012). To ensure students immediately filled their data and minimize the data loss and data was analyzed simultaneously the researchers used Google forms to collect data.

Sample and Sampling Technique

To study the views of pre-service teachers' on the challenges faced in the process of learning with the help of blended learning approach in school internship, 75 pre-service teachers were selected through purposive sampling technique. The further classification of the selected sample based on affiliated university has been presented through the following table number 1-

Table Number 1 Distribution of sample on the basis of affiliated university

S. N.	**Affiliated University**	Gender	N	Total
1.	Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Wardha (Maharashtra)	Male	25	27
		Female	02	
2.	Teerthanker Mahaveer University, Moradabad, (Uttar Pradesh)	Male	14	34
		Female	34	
Total				75

Research Tool

In this research, the researcher used the self-constructed questionnaire titled *'Blended learning approach challenge questionnaire'* for data collection. The questionnaire was constructed in the following manner:

Phase I (Developing the Primary Draft of Questionnaire): There were 18 questions included in the first draft of the questionnaire. After the recommendations of the subject experts, some of the questions were removed from this questionnaire and some new ones were included. As a result, the questionnaire's improved structure had 15 items in total, each of which addressed a distinct component of its predefined dimensions.

Phase II (Standardization of Questionnaire): The questionnaire was distributed to subject experts in the field of teacher education in order to determine its **Face Validity** and **Content Validity**. Five questions were eliminated from the questionnaire in the light of the advice provided by the subject experts. In addition, the linguistic style of a few more questions was also modified as needed. Thus, the final draft of the questionnaire had ten questions in all.

Phase III (Administration of Questionnaire): The questionnaire with the relevant guidelines was converted into a Google Form, its administration was carried out by those pre-service teachers who had completed their school internship program through a blended learning approach. According to the guidelines on the opening page of the questionnaire, the pre-service teachers were requested to indicate their opinions by checking one or more points on the questions. This entire process was completed online, for which Google Forms was used.

Data Analysis and Interpretation

Question-wise data was analysed with the help of percentage statistics, the results of which are presented in the following tables:

Theme: Technical issues

The students were asked a question to gauge the technical issues faced by them while using the Blended Learning approach.

S. N.	Name of Technical Issue (s)	N	Percentage
1	Network/Signals	47	62.7
2	Mobile	6	8

3	Laptop	1	1.3
4	Learning Management System	4	5.3
5	No Problem	9	12
6	Network/Signals and Learning Management Systems	2	2.7
7	Network/Signals and Mobile	4	5.3
8	Network/Signals and Laptops	2	2.7
Total		75	100.0

62.7% of the learners faced issue(s) related to network/signals. Similarly, 8% of the learners had to face the problems related to the mobile, 1.3% of the learners to the laptop and 5.3% of the learners to the learning management system. In addition, 2.7% of the learners faced both Network/Signals and Learning Management Systems, 5.3% of the learners faced both Network/Signals and Mobile, 2.7% of the learners faced both Network/Signals and Laptops related issue (s) and 12% of the learners believed that they did not face any kind of technical issue(s). Network issues was the major technical issue faced by the students in the study.

Theme: Issues and Challenges faced while interacting online.

S. N.	Faced Problem (s)	N	Percentage
1	Absence of interaction	10	13.3
2	Lack of sound	43	57.3
3	Variations in context	3	4.0
4	No problem	10	13.3
5	Absence of interaction and Lack of sound	4	5.3
6	Absence of interaction, Lack of sound and Variations in context	2	2.7
7	Lack of sound, Variations in context and Boring Class	1	1.3
8	Lack of sound and it's a Boring Class	2	2.7
Total		75	100

Although nearly 13% students said, they didn't face any issue while interacting only, the equal number of students felt they felt the absence of interaction while learning via the blended mode. 57.3% of the learners had to face problems related to the lack of sound and 4.0% of the learners to the variations in context The lack of sound was further related to device used by students to access the blended learning content. In addition, 5.3% of the learners faced both absence of interaction and Lack of sound, 2.7% of the learners faced Absence of interaction, Lack of sound and Variations in context, 1.3% of the learners faced Lack of sound, Variations in context and Boring Class and 13.3% of the learners believed that they did not face any kind of problem(s). It is thus evident that lack of sound was the predominant challenge faced by the sample while using the blended mode.

Theme: Language vis a vis learning with the help of innovative learning approaches

S. N.	Language Related Problem (s)	N	Percentage
1	Difficult language	6	8.0
2	Lack of rhythm	16	21.3
3	Complex nature of technical language	15	20.0
4	No problem	28	37.3
5	Difficult language, Lack of rhythm and Complex nature of technical language	3	4.0
6	Lack of rhythm, Complex nature of technical language and Change text meaning	2	2.7
7	Lack of rhythm and Complex nature of technical language	1	1.3
8	Change text meaning	2	2.7

9	Difficult language and Lack of rhythm	2	2.7
Total		75	100

The above table shows nearly 8.0% of the learners found the language difficult while learning with the help of innovative learning approaches. Similarly, 21.3% of the learners had to face the problems related to the Lack of rhythm and 20.0% of the learners to the Complex nature of technical language. 4.0% of the learners faced difficult language, Lack of rhythm and Complex nature of technical language, 2.7% of the learners faced Lack of rhythm, Complex nature of technical language and Change text meaning, 1.3% of the learners faced Lack of rhythm and Complex nature of technical language, 2.7% of the learners faced Change text meaning, 2.7% of the learners faced Difficult language and Lack of rhythm related problems and 37.3% of the learners believed that they did not face any kind of problem(s).

Theme: Human factors that hindered learning through new technology

S. N.	Human Related Factors (s)	N	Percentage
1	Absence of teacher	2	2.7
2	Geographical remoteness	9	12.0
3	Absence of peer group	15	20.0
4	No problem	18	24.0
5	Absence of teacher and Absence of peer group	4	5.3
6	Geographical remoteness and Not taught by animation	1	1.3
7	Geographical remoteness, Absence of peer group	2	2.7
8	Not taught by animation, disregard for expressions and lack of dialogue	1	1.3
9	Disregard for expressions and Lack of dialogue	17	22.7
10	Not taught by animation	3	4.0
11	Absence of peer group, Disregard for expressions and Lack of dialogue	1	1.3
12	Lack of dialogue	2	2.7
Total		75	100

Nearly 24% participants felt there was no hinderance due to any human factor while the remaining participants of the study opined that geographical remoteness (12.2%); absence of peer group (20.2%), disregard for expressions and lack of dialogues etc formed the majority of the human factors that hindered learning

Theme: Psychological factors that hindered learning in an online learning environment.

S. N.	Psychological Factors (s)	N	Percentage
1	Anxiety	5	6.7
2	Preparation	7	9.3
3	Lack of motivation for learning	10	13.3
4	Lack of interest	14	18.7
5	Fatigue	10	13.3
6	Lack of attention	9	12.0
7	No problem	7	9.3
8	Lack of motivation for learning, Lack of interest	1	1.3
9	Anxiety, Preparation, Lack of motivation for learning and Fatigue	2	2.7
10	Anxiety, Lack of motivation for learning, Lack of interest and lack of attention	2	2.7
11	Anxiety, Preparation, Lack of motivation for learning	3	4.0
12	Lack of interest and lack of attention	5	6.7
Total		75	100

It is clear from the observation of above table, the participants perceived the various psychological factors that hindered learning in an online learning environment. Prominently, 18.7% of the learners admitted that Lack of interest, 13.3% of the learners Fatigue, 12.0% of the learners found Lack of attention, while 6.7% of the learners believed that anxiety was the psychological factor hindering the learning process with the help of online learning approach. 9.3% of the learners believed that preparation, 13.3% of the learners believed that lack of motivation for learning, Whereas 1.3% of the learners reported lack of motivation for learning, lack of interest, 2.7% of learners disregard for expressions and lack of dialogue, 4.0% of learners not taught by animation, 1.3% of learners Absence of peer group, Disregard for expressions and Lack of dialogue and 2.7% of learners reported Lack of interest and lack of attention as psychological factor. Considered the most obstructing element. Additionally 9.3% of the learners believed that there were not any psychological factors that hindered the process of learning.

Theme: the nature of the learning material provided during learning with the help of blended learning approach

S. N.	Nature of the Learning Material	N	Percentage
1	Difficult language	5	6.7
2	Lack of rhythm	14	18.7
3	Complex nature of technical language	19	25.3
4	No problem	26	34.7
5	Interaction Problems	6	8.0
6	Difficult language, Lack of rhythm and Lack of emotion in the teacher	1	1.3
7	Lack of rhythm and Complex nature of technical language	1	1.3
8	Difficult language, Lack of rhythm, Complex nature of technical language, Lack of emotion in the teacher and Interaction Problems	1	1.3
9	Difficult language, Lack of rhythm and Interaction Problems	1	1.3
10	Lack of rhythm and Lack of emotion in the teacher	1	1.3
Total		75	100

It is clear from the perusal of the above table majority of the learners found problems with the language of the material – they included 6.7% t the learning material provided during the course of blended learning approach was difficult language in nature; 18.7% of the learners believed that there was a lack of rhythm in the learning material provided, 25.3% of the learners believed that there were complex nature of technical language and 8.0% of the learners accepted that there were interaction problems. On the other hand, 34.7% of the learners believed that the nature of the learning material provided during learning with the help of blended learning approach was good.

Theme: Nature of the Supporting Material while learning in an online mode

S. N.	Nature of other Supporting Learning Materials	N	Percentage
1	Difficult	2	2.7
2	Distasteful	18	24.0
3	Against the mental capacity of the students	17	22.7
4	Simple, accessible and interesting	22	29.3
5	No problem	8	10.7
6	Distasteful and Against the mental capacity of the students	1	1.3
7	Difficult, Distasteful and Against the mental capacity of the students	2	2.7
8	Difficult and Distasteful and Against the mental capacity of the students	2	2.7
9	Difficult and Distasteful	3	4.0
Total		75	100

It is clear from the perusal of the above table that 2.7% of the learners believed that the nature of other supportive learning materials was difficult while learning with the help of online approach. 24.0% of the learners

believed that the other aided learning material provided was distasteful, 22.7% of the learners believed that the material against the mental capacity of the students, 29.3% of the learners admitted that the material was simple, accessible and interesting. While 1.3% of the learners described the supportive learning material as distasteful and against the mental capacity of the students, 2.7% of the learners reported it was difficult, distasteful and against the mental capacity of the students, 2.7% of the learners were explain that is was difficult and distasteful and against the mental capacity of the students. Additionally 10.7% of the learners believed that the nature of the supporting learning material provided during learning with the help of blended learning approach was good.

Theme: Activities done in the Blended Learning Mode.

S. N.	Nature of other Supporting Learning Materials	N	Percentage
1	To apply practically	17	22.7
2	Lack of correlation of related content with activities	23	30.7
3	Monotonous and boring activities	7	9.3
4	No problem	18	24.0
5	To apply practically, Lack of correlation of related content with activities and Monotonous and boring activities	4	5.3
6	To apply practically and Lack of correlation of related content with activities	3	4.0
7	To apply practically and Monotonous and boring activities	1	1.3
8	Lack of correlation of related content with activities and Monotonous and boring activities	2	2.7
Total		75	100

It is clear from the above table that 22.7% of the learners felt that the co-curricular activities carried out in the teaching-learning environment created by the blended learning approach faced the most challenges related to apply practical. 30.7% of the learners believed that there was a lack of correlation of related content with activities, 9.3% of the learners believed that monotonous and boring activities, 5.3% of the learners believed that the co-curricular activities performed in the teaching-learning environment created by the blended learning approach that To apply practically, Lack of correlation of related content with activities and Monotonous and boring activities, 1.3% of learners reported Lack of correlation of related content with activities and Monotonous and boring activities jointly accepted the challenge. Whereas 30.7% of the learners admitted that they did not face any challenges in the co-curricular activities carried out in the teaching-learning environment created by the blended learning approach. Thus it can be said that most of the learners did not face any kind of challenges in the co-curricular activities carried out in the teaching-learning environment created by the blended learning approach.

Theme: LMS experience

S. N.	Learning Management System (LMS)	N	Percentage
1	Facebook	4	5.3
2	WhatsApp	2	2.7
3	Google Meet	19	25.3
4	Google Classroom	6	8.0
5	Olympus	24	32.0
6	Zoom	7	9.3
7	Google Classroom, Olympus and Zoom	2	2.7
8	Google Meet and Google Classroom	4	5.3
9	Google Meet, Google Classroom, Olympus and Zoom	4	5.3
10	WhatsApp, Google Meet, Google Classroom, Olympus and Zoom	1	1.3
11	Google Classroom and Olympus	1	1.3
12	WhatsApp and Google Classroom	1	1.3
Total		75	100

It is clear from the above table that 8% of the learners erroneously considered Facebook and WhatsApp as an LMS. They also erroneously considered Google Meet as an LMS (25.3% of the learners) while 8.0% of the learners preferred Google Classroom, 32.0% of the learners to Olympus.

Theme: Challenges in Blended Learning Approach

S. N.	Challenges in Blended Learning Approach	N	Percentage
1	Lack of interest	12	16.0
2	Lack of collaborative learning and interaction	15	20.0
3	Mental stress	15	20.0
4	Lack of positive attitude towards online learning	9	12.0
5	Lack of technical aptitude	9	12.0
6	Lack of collaborative learning and interaction, Mental stress and Lack of positive attitude towards online learning	1	1.3
7	Lack of collaborative learning and interaction and Mental stress	1	1.3
8	Mental stress and Lack of positive attitude towards online learning	2	2.7
9	Lack of interest and Mental stress	1	1.3
10	Lack of collaborative learning and interaction, Mental stress and Lack of positive attitude towards online learning	2	2.7
11	Lack of interest, Mental stress and Lack of technical aptitude	2	2.7
12	Lack of positive attitude towards online learning and Lack of technical aptitude	6	8.0
Total		75	100

It is clear from the observation of the above table that 16.0% of the learners believed that the lack of interest was their weakest **aspect** during blended learning. 20.0% learners considered lack of collaborative learning and interaction, 20.0% learners lack of positive attitude towards online learning, 12.0% learners considered lack of technical aptitude as their weakest side. Whereas 1.3% learners believed that lack of collaborative learning and interaction, Mental stress and Lack of positive attitude towards online learning, 1.3% learners believed that lack of collaborative learning and interaction and Mental stress, 2.7% learners believed that lack of mental stress and lack of positive attitude towards online learning, 1.3% of learners believed that lack of interest and mental stress, 2.7% of learners believed that lack of collaborative learning and interaction, Mental stress and Lack of positive attitude towards online learning, 2.7% of learners believed that lack of interest, Mental stress and Lack of technical aptitude And 8.0% of the learners jointly considered lack of positive attitude towards online learning and lack of technical aptitude as their weakest aspect during blended learning. Thus it can be said that most of the learners identified the lack of collaborative learning and interaction and mental stress as the most vulnerable aspect during blended learning.

Research Finding and Discussion

The study reveals that the most common technical issues faced by interns during online learning are sound-related, network/signals-related, and language-related. The study also found that disrespect for expressions and lack of interpersonal conversation contributes to difficulties. The biggest psychological barrier to online learning is lack of interest, with students finding materials easy to understand and engaging. The absence of a connection between activities and information also hinders completion of course-related tasks. Olympus was found to be the most effective Learning Management System for online teaching and learning. Mental stress and lack of collaborative learning and engagement are considered the most susceptible aspects of online learning.

The internship program's interns faced various challenges when using a blended learning approach. Technical issues were primarily related to networks and signals, with laptops posing the least difficulty. Language-related issues were mainly due to technical jargon, and human factors like disrespect for expressions and lack of interpersonal conversation contributed to difficulties. The biggest psychological barrier to online learning was a

lack of interest, and most students found the materials easy to understand and engaging. The absence of a connection between activities and information was also a challenge. Olympus was found to be the most effective Learning Management System for online teaching and learning. Mental stress and lack of collaborative learning were identified as the most susceptible aspects of online learning. Cognitive load was also a detrimental component in learning using blended learning strategies. Teacher educators' opinions on using a blended learning strategy for internships revealed several key themes, including insufficiency, appropriate selection, psychological aspects, extrinsic variables, and the unique learner.

Educational Implications

This research paper will benefit a wide range of educational stakeholders, including teachers, trainers, school leaders, and curriculum developers. In the current education system, teachers are facilitators who shape effective learning environments. This paper will help teachers at all levels understand and address the challenges of blended learning, enabling them to create supportive, challenge-free classrooms. Teachers will gain insights into different models of blended learning, helping them choose the best approach based on student interests and needs, fostering positive student-teacher relationships, and enhancing classroom environments. Additionally, this paper will equip teachers with strategies to tackle assessment challenges and measure learning outcomes effectively. Education professionals such as project officers, resource persons, and teacher-trainers will also find practical applications for their work areas.

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