

Discrepancies between Theoretical Knowledge and Implementation: Practice Teachers' Views

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Abstract

A student-teacher or intern teacher or practice teacher can be an undergraduate or graduate student who tries to teach through implementing his/her theoretical knowledge in real classroom settings to obtain a degree in education. But it is neither simplistic nor intuitive to execute all the theoretical knowledge into application. This mixed-method study aimed to examine the extent of the gap between theoretical knowledge and implementation in the classroom by the practice teachers. To reach the purpose of this research, data were collected from a total of 101 practice teachers (Survey- 92; Interview- 09) who did their internship at 12 different schools as a part of their graduation. The findings of this study depict that most of the practice teachers were unable to implement their theoretical knowledge into practice due to the inadequate preparation, time management, workload, and difficulties of real classroom settings. Therefore, teachers proposed a more contextual curriculum for teacher education and infrastructural development of the classroom is essential to diminish the implementation gap of practice teachers.

Keywords: *Practice teacher; Internship program; Pedagogy; Classroom environment; Teachers' satisfaction*

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I. Introduction

Practice in sophisticated forms involves the balance of knowledge, skills, understanding, relationship, and identity to bring off particular activities with others in a particular environment [1]. Practice should be understood in terms of its aims, its practices, and its history [2]. Most types of formal development or practice include openings for novices in several practice settings to use their knowledge; the design of these settings can help shape what they will accomplish. Novices can experiment with their new abilities and skills in such environments [3, 4]. However, Dewey (1965) reminds us, it is neither simplistic nor intuitive to learn from experience [5]. Teaching practice is such a long-established discipline that it is simple to presume that it has a clear vision of what it is and how it can be operationalized and performed by all those engaged with it. Many young teachers are designing strategies that help them to adapt to the challenges of their teaching careers. They prefer to struggle with daily routines, rapid intuitive reactions to the situation in the classroom, and the assumptions of practice and discourse taken for granted in the classroom, staffroom, and other school contexts. They wander away from being analytical and insightful in the middle of repetitive commitments; hence, they become repetitive in their performance [6]. A student-teacher or intern teacher or practice teacher can be an undergraduate or graduate student who tries to teach through implementing his/her theoretical knowledge in real classroom settings under the rigorous supervision of a certified teacher to obtain a degree in education. The term is also often used alternatively to "Pre-Service Teacher". This process of teaching involves many experiences that in a non-school setting cannot be replicated [7]. In the South African context, however, Buchner and Hay (1999) discussed this in a particular situation concerning practice shock, emphasizing that training programs do not sufficiently prepare and enable the student for the reality of the teaching profession [8]. This confronts students with a difficult situation. Besides, challenging behavior in schools affects teachers [9, 10]. If teachers felt insufficiently prepared to handle difficult behavior in their classrooms, behaviors that were initially deemed "minor" could escalate to levels of serious consequences [11]. Teachers need to have a clear understanding and knowledge of the subject, management of the classroom, behavior management, and unique challenges as they arise [12]. Otherwise, teachers face difficulties in the planning, preparation, and organization of learning activities for students, which are important determinants of teaching practices [13, 14, 15, 16]. Reupert and Woodcock (2010) conducted a study of pre-service teachers in Canada, to review reports and trust in the use of classroom management techniques [17]. They observed that with the usage of preventive measures and initial correction strategies such as proximity management and redirecting comments, pre-service teachers were more optimistic. Llinares & Krainer (2006) proposed that the incorporation of analysis and contemplation by

classroom experience provided greater opportunities for pre-service teachers to combine theory and practice, where the practice was consolidated through theories [18].

Student teachers/practice teachers with higher degrees of differential aptitude had high teaching competence along with other teaching skills. Students are provided with a chance to improve cognitive and emotional support from practice teachers [19]. Educational courses offer students teachers these kinds of support and teacher education institutions are gradually seeking to connect philosophy with practice during the career learning, reflection, or reflection of student teacher's education programs [20, 21]. Student teachers analyze the origins, aims, and implications of their work periodically during this practice [21].

Practice teaching is referred to as an internship program that is held during the final year of B.Ed. honors courses. It is attended by the students of B.Ed. course and occurs in the schools that collaborate with their institute. This course is facilitated by the internship committee and overseen by supervisors. At the end of the internship, the practice teachers are evaluated. The internship program is aimed to facilitate students to know the workplace environment deeply and use what they have learned during their professional courses and to understand to what degree they can apply their skills in a real-life setting. There are a lot of things that are informal and cannot be learned in the classroom (e.g. informal relationships with colleagues) and these informal learning are important for a student as he/she can understand the needs of the workplace better and make them useful.

Thus, internship teaching provides an opportunity to the final year students to implement their theoretical knowledge in an actual educational institution and gain hands-on experience through teaching and actively taking part in all major activities of the institution. This internship program is a perfect opportunity for practice teachers to apply what they have learned through their B.Ed. Courses (honors) in an education department. Education departments at various universities of Bangladesh provide their students one semester or six-month-long internship teaching in primary and secondary school to implement the knowledge they have acquired from professional courses such as Educational Psychology, Instructional Technology, Organization and Management of the Educational Institution, Evaluation and Measurement, and Practicum: Micro-Teaching and Simulation. Most of the educational terms, theories, and courses are imported from the western education system and these are improvised to a minimum degree in the perspective of this country. Therefore, student teachers often failed to apply those theories in real classroom settings. There is a need to know why and to what extent the practice teachers failed to implement their knowledge during the practice period. This study aspires to find the answer to this question.

Here is the conceptual framework for this study based on the aforementioned course components.

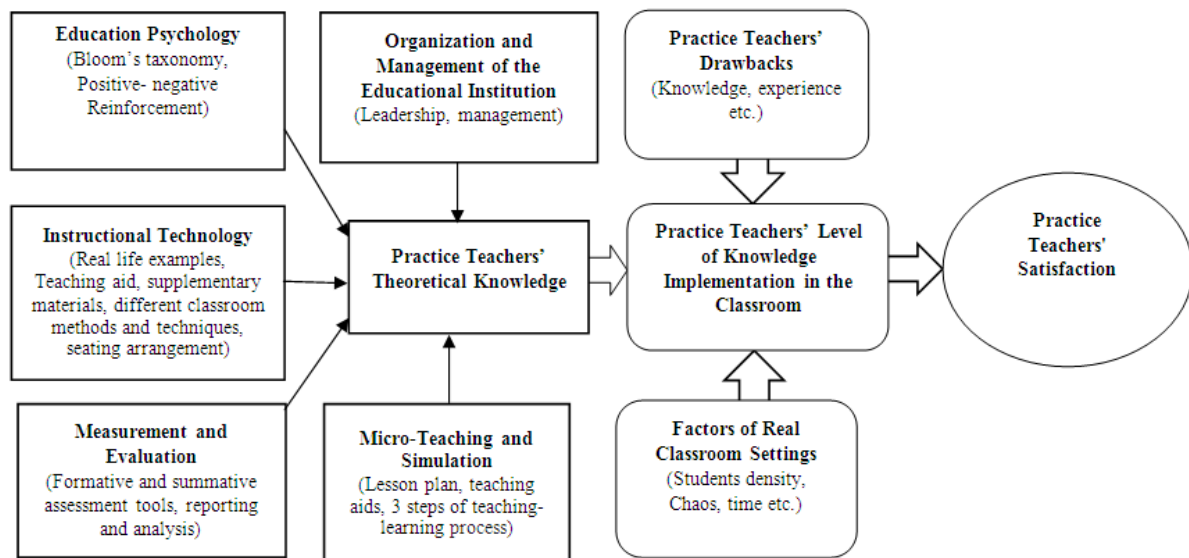


Figure 1: Conceptual Framework for this study

II. Method And Materials

The study employed an explanatory sequential design, a type of mixed-method research approach. In the initial stage of the study, quantitative data was collected. Later, to explain the findings obtained from the quantitative data analyses and to get in-depth views of the participants, qualitative data was collected at the final stage [22].

2.1 Participants

A total of 92 practice teachers participated in the initial phase of this study who just completed the school teaching semester as part of the graduation program on education (four-years Bachelor of Education). The participated student teachers did their internship at 12 different schools. Further to get qualitative data, 9 practice teachers were selected conveniently for 9 in-depth interviews.

Table 01

Demographic Information

	Gender	Frequencies	Percentages (%)
For survey (n= 92)	Female	44	52%
	Male	48	48%
For interview (n= 9)	Female	3	33%
	Male	6	67%

2.2 Instrument

For quantitative data, a self-reported four-point survey scale was developed to measure to what extent the intern/ practice teacher could apply their acquired pedagogical knowledge during their school practices sessions. For collecting quantitative data, a total of 14 items were developed based on the five courses they have attended. Additionally, 8 open structured questions were formed to get in-depth views of the practice teachers. Five major education courses relevant to practice teaching include,

1. Educational Psychology,
2. Instructional Technology,
3. Organization and Management of the Educational Institution,
4. Evaluation and Measurement, and
5. Practicum: Micro-Teaching and Simulation.

2.3 Data Analysis

2.3.1 For Instrument

To secure the validity of the instrument, the initial questionnaire was sent to two experts to determine whether the items are clear, understandable, and reflect the pedagogical knowledge of the aforementioned courses. Based on their opinions and feedback a total of 14 items were selected for the survey questionnaire.

2.3.2 For Quantitative Data

IBM SPSS Statistics version 25 was employed to determine the mean and standard deviation for each statement of the survey questionnaire.

2.3.3 For Qualitative Data

To explain the findings and get the broader views of the descriptive analyses, thematic analysis was administered to determine the main themes of the data obtained through interviews.

III. Results And Findings

3.1 Quantitative results

The descriptive findings of this research show the implementation level of practice teachers' theoretical knowledge in real classroom settings. Item-wise result analysis in table 02 reveals that there is a varied performance in different areas of the learning application.

Table 02

Mean and Standard Deviation

Statements	M	SD
Make and follow the lesson plans regularly.	2.31	.96
Use 3 steps of the teaching-learning process (Pre-active phase, Interactive phase, and Post-active phase).	2.92	.83
Perform motivational activities related to the particular content.	3.12	.78
Reflect 3 domains (e.g., cognitive, psychomotor, and affective) of the teaching-learning process.	2.02	.83
Use real-life examples during teaching-learning activities.	2.04	.79
Provide supplementary materials to the students.	2.53	.98
Use appropriate teaching aid in the class.	2.88	.92
Get the scope of conducting a formative assessment.	2.75	.93
Wait for students' responses after asking a question.	3.76	.54
Get the scope of using different methods in the class.	3.23	.86
Use negative reinforcement during class time.	2.45	.96
Get the scope of arranging seats before teaching-learning activities.	3.22	.80
Use Bloom's taxonomy for developing an assessment tool.	2.90	.94
Think Micro-teaching and Simulation course was effective.	2.98	.83

Aforementioned table 02 shows an overview of practice teachers' implementation level of different theoretical knowledge and skills. The data of above table 02 also depicts that majority of intern/ practice teachers were failed to execute all their knowledge and skills in real classroom settings which were obtained from education courses during their B.Ed. program. The practice teachers could practice their knowledge for fewer items quite well, yet most of those dealt with limitedly in classroom practice. For instance, for only four components out of 14, the student teachers had a mean above 3.00. Those are: performing the motivation part related to the lesson (3.12), arranging seats (3.22), getting the scope of using different methods for teaching-learning activities (3.23) and, waiting for students to answer (3.76). For the rest of the components, practice teachers had a very poor mean (<3.00), especially for reflecting 3 domains of the teaching-learning process (2.02), using a real-life example during class (2.04), and making and following lesson plans regularly (2.31).

3.2 Qualitative results

The qualitative data collected from interviews were intended to illustrate how the practice teachers were able to apply or not to apply the acquired skills from education courses in the real teaching-learning sessions.

1. Perception of 'Micro-teaching and Simulation' course: Practice teachers attended the 'Micro-teaching and Simulation' course before starting the practicum semester. During this course, practice teachers get first-hand experience of teaching in a simulated environment which enables them to perform well in the real classroom settings. Here, the students get the first chance to practice their teaching skills by performing a particular lesson in front of their classmates (acting students) for a short period (5 to 10 minutes) under the close supervision of the teacher.

The mean score for the survey statement, 'I think Micro-teaching and Simulation course was effective' is 2.98. The intended question wanted to explain and analyze the utility extent of the micro-teaching and simulation course. Most of the teachers showed a positive response to this course. Few of the teachers felt that the micro-teaching and simulation course was a great platform for them to practice teaching-learning steps. One of the teachers remarked,

"That course helped me to overcome my uneasiness in front of the class and improved my presentation skills." (T2)

Some of the teachers mentioned that there was not enough scope for practicing the learned theories and techniques before this practicum course. Micro-teaching and Simulation course allowed them to apply what they learned in previous courses in a simulated classroom setting. In a practice teacher's words,

"In the theoretical courses, we have learned to make a general format of a lesson plan, and teaching aids whereas in Micro-teaching and Simulation course we learned making the lesson plan and teaching aids as per the need of the class." (T5)

Consequently, the practice teachers were able to use more theoretical terms during school teaching as they had practiced those in Micro-teaching and Simulation course. However, some of the teachers experienced some shortcomings in this course. Different environments, instructional modes, time allocation are major points of them. One of the teachers opined,

"Simulation does not provide the actual unfamiliar situations and challenges of a real classroom." (T4)

Apart from that some of the teachers faced a problem that the students in the simulation were their classmates so they were mature and easily cooperated with the teacher. The number of students was fewer in the simulation, so the teacher could interact with everyone but the real classroom was far different. So, they were not satisfied with their performance in real settings.

2. Time management for the 3 steps of the teaching-learning process: A classroom is comprised of students with multiple intelligences. Allocating time for 3 steps of teaching-learning activities (e.g., Pre-active phase-preparation, Interactive phase-presentation, and Post-active phase-evaluation) allows a teacher to deliver the content in a better way.

2.92 is the mean score for the survey statement, 'I use 3 steps of the teaching-learning process (Pre-active phase, Interactive phase, and Post-active phase) on my lesson'. To explain the lower mean for this particular statement, the intended questions were asked to the interviewees. When asked about the time management for the 3 steps of teaching-learning, most of the teachers showed positive responses. Some of the teachers perceived that the disorder of the students consumes time. So, setting time as part of the three steps of the teaching-learning process may create a positive environment in the classroom. Most of the teachers perceived that by proper planning, three steps of teaching-learning can be executed. One of the practice teachers urged a technique of making a lesson plan with lesser time than they actually can set. In the practice teacher words,

"If the actual time is 40 minutes, then one should plan for completing the class in 35 minutes so that rest of the time can be used for the unexpected situation." (T8).

Moreover, some student teachers believe that assessing students and providing necessary feedback during the lesson can be efficient.

Yet, few practice teachers opined that they were unable to manage time for multiple reasons such as insufficient time, the pressure of completing the curriculum, unfavorable classroom situation. Few of the practice teachers perceived that the actual class time was not sufficient for conducting three steps of the teaching-learning process. They experienced the pressure of completing the syllabus as the workdays were shortened due to the excessive number of holidays and different events and programs. Sometimes, practice teachers found it unsatisfactory to make their students disciplined and apply three steps of the teaching-learning process by ensuring participation in the unfavorable classroom settings.

3. Using different methods and techniques in the classroom: Different teaching methods and techniques can enhance interaction and communication in the classroom which is essential for effective teaching-learning. These methods include lecture method, guided group discussion, role-play, problem-solving method, heuristic method, project method, multiple ways of teaching-learning (MWTL), and many more.

3.23 is the mean score for the survey statement, 'I get the scope of using different methods in the class'. The relevant question to this topic intended to seek out how a practice teacher was able to use the guided group discussion method as well as other methods in their teaching-learning activities or why she/he was unable to use those methods properly. Few practice teachers revealed their ways of using multiple methods and techniques. Such as pre-planning, proper time allocation and supervision, assessing through quiz competition, dividing tasks among the members of the group.

However, almost half of the interviewees (practice teachers) were unable to perfectly use different methods in their classrooms. Their reasons are insufficient class time, high-density classroom, introversion, and lack of communication between students. Regarding the guided discussion method, one of the practice teachers opined,

"many students do not interact with the students sitting next to him and introverted students cannot contribute to the discussion and the time for monitoring the discussion is not sufficient." (T8)

4. Perception about using teaching aids: Many lessons are better taught with the help of proper teaching aid and a good teaching aid can tremendously enhance the teaching-learning experience of the students. Practice teachers also understood the usefulness of teaching aids but they mostly remarked that there was not enough scope for using teaching aid in the classroom, therefore, 2.88 is the mean score for the survey statement 'I use appropriate teaching aid in the class'.

Besides, they emphasized the following challenges: unavailability of low-cost and appropriate teaching aid, time-consuming and problematic situations of high-density class, difficulty in making teaching aids daily, inaccessible laboratory for lower grade students, 4-6 classes per day.

Low cost and relevant teaching aids were not always available for each lesson. As they had to conduct more than one class every day so making and finding low-cost and appropriate teaching aid was quite difficult for them. They pointed out that it was difficult for them to develop teaching aids daily for the crowded class. Besides, one of the teachers said,

"If students are not familiar with the teaching aid then they do not appreciate it and tend to participate less." (T1)

But a practice teacher(T2) suggested that following the instructions of the textbooks and teachers' guide can be helpful for practice teachers to develop and use teaching aids regularly and effectively.

5. Using real-life examples during teaching: Second lowest mean (2.04) is found for the survey statement, 'I use real-life examples during teaching-learning activities'. Although real-life examples can enhance the learning, practice teachers faced some difficulties regarding providing real-life examples. Thus, interviewees were asked to provide their views regarding this matter. In answer to the question, for instance, to what extent real-life examples could be used in teaching practice in the classroom, practice teachers came up with diverse responses. The two key ways of using real-life examples were found by those who used real-life examples in the classroom and agreed that real-life examples should be used in the classroom. Firstly, using hints given in the textbook, and secondly, extracting ideas from textbook knowledge and make a creative real-life example on their own. A few of the teachers echoed that real-life examples can be incorporated by using clues provided in the textbooks. There are many real-life examples provided in those, particularly the lower grade textbooks so that the students can easily relate. In the words of a practice teacher,

"for better understanding, especially when working with special children, the materialization of a subject is required"(T6)

On the other hand, student teachers who cannot use real-life examples frequently showed some reasons too. For instance,

- **Lack of planning:** Some of the practice teachers complained that they did not always have the scope of planning the class for various reasons such as having too many classes in a workday. One practice teacher said,
“Though there may have relevant examples yet due to lack of planning one cannot instantly come up with appropriate examples” (T1)
- **Insufficiency of relevant and appropriate examples and teaching aids:** Some of the practice teachers remarked that in higher grade classes, relevant examples regarding a certain topic were not readily available in the textbooks and it might need a particular tech-based teaching aid to properly demonstrate that topic in a real-life setting. Regarding this a practice teacher said,
“Real-life examples of many of the abstract topics cannot be presented in absence of proper teaching aid (e.g. Digital audio-visual teaching aid)” (T9)
- **Inappropriate environment for experimentation:** Some of the practice teachers pointed out that some topics were better understood by experimentation yet many of the schools did not have an appropriate environment and apparatus for experimentation. A practice teacher remarked,
“As the environment of the classroom is conducive that’s why students could not use the experimental apparatus properly” (T5)
- **The problem regarding demonstration due to students’ density:** All of the practice teachers echoed that most of the classrooms contain more than 60 students. Thus, it created a difficult situation for them to demonstrate any example as it might cause chaos and disorder in the dense classroom.

6. Developing assessment tools following bloom’s taxonomy: Assessment is an essential component for the teaching-learning process and Bloom’s taxonomy is frequently used as it can assess the higher as well as the lower order of learning. 2.90 is the mean for the survey statement, 'I use Bloom’s taxonomy for developing an assessment tool'. Asking about the reasons why they were unable to use and the extent to which they used Bloom’s taxonomy, respondents came up with several ways of using this taxonomy. The perception was: proper use of Bloom’s taxonomy is closely related to a deep understanding of the content. The approved assessment system by the government of Bangladesh is based on bloom’s taxonomy. Therefore, practice teachers wanted to use it frequently. One of the teachers said,

“I let them practice knowledge, understanding, application, higher-order questions in the class, that helps me make creative question very easily. It also helps the students to pick up the questions.”(T2)

Besides, practice teachers experienced some constraints in implementing this taxonomy. Such as time-consuming tool development process, students’ inability to answer higher-order questions, etc. One of the practice teachers said,

“Those schools which take class tests too frequently, the teachers cannot make creative questions properly as it requires time and creativity. So, the teachers will not be able to make creative questions on Bloom’s taxonomy for each question” (T3)

7. Perception about seating arrangement: The seating arrangement is one of the major parts of classroom management. A well-managed class can be a suitable platform for both teacher and student to successfully carry out the teaching-learning process. The interview question about seating arrangement tried to find out the way how a practice teacher arranged the seat and why one could not. The answer to this question was quite positive. Student teachers responded with 3 positive points which were: 1) mixing up students of different psychology and background, 2) fixing the seating arrangement before the class, and 3) implementing need-based seating arrangement. Teachers perceived that in a classroom, as all the students are not of the same type so arranging them according to their psychology and performance helps to make a manageable class. One of the teachers opined,

“By inspecting students’ background and psychology I can arrange seating structure of the class.” (T7)

On the other hand, practice teachers experienced that changing the seating arrangement on daily basis was time-consuming; sometimes caused chaos and disarrangement in the class. A solution to the problem may be fixing the seating arrangement for a while or implementing a need-based seating arrangement for example height, performance, and special needs of the students (physical or mental disabilities). One of the teachers remarked,

“I arrange the seat in a way so that students of special needs can see and understand teaching aid and instructions written on the board.” (T9)

8. Perception of negative-reinforcement/punishment in the class: This study intended to understand why a practice teacher used negative-reinforcement/punishment and how they managed the teaching-learning process without negative-reinforcement/punishment. In response to the question of whether negative-reinforcement/punishment is necessary for continuous learning in the classroom. Those who were in favor of punishment had

shown 4 reasons. The reasons were lack of discipline, lack of manners and values; difficulty in managing classes, and changing behavior. It is natural for students at an early age to be unsteady and therefore making them disciplined and for reducing chaos in the classroom, punishment was deemed necessary by many practice teachers. A portion of practice teachers thought that in this era children do not get to practice manners and values in their family very much. So, many practice teachers believed that these students will follow their etiquette if they were punished. In the words of a teacher,

"Many students come from a different socio-economic background where it was not easy to practice manners and values." (T8)

Moreover, due to the inconvenient student-teacher ratio, a practice teacher could not conduct the class properly. It was quite difficult in a highly dense classroom. A practice teacher mentioned,

"It is very difficult for a teacher to determine students' background and psychology at a time to maintain them properly." (T7)

Besides, for correcting mistakes in behavior, sometimes punishment is considered as a necessary evil by the practice teachers. On the contrary, as we know punishing students in the classroom is nationally banned in the classroom by the government, abiding by this law, some practice teachers disagreed with the necessity of punishment. Because punishing students may result in a violation of the law. Furthermore, due to punishment, students become de-motivated about the school. It can cause a high dropout rate. A teacher who regularly punishes students does not have a positive impression in the class. Students fear him/her and cannot concentrate on the lesson.

IV. Discussion And Conclusion

This study aimed to find the implementation gap of the practice teachers. Results revealed that the most of the practice teachers were unable to execute their theoretical knowledge in the practical field. Among 14 survey items, most of them (11 items) showed mean scores less than 3.00. Moreover, average scores were noticeably lower for the components in terms of reflecting three domains of the teaching-learning process, getting the opportunity of providing real-life examples, making lesson plans regularly. In the context of Bangladesh, class size and the number of classes per day are the impediments to implementing theoretical knowledge in real classroom settings. At the primary level of education, the teacher-student ratio is 1:43 while at the secondary level it is 1:34 [23]. A teacher has to take 4 to 6 classes in a day and the gap between the two classes is very short [24]. Because of these huge work-loads, practice teacher does not get enough time to relax or to prepare lesson plans properly. Using teaching aids helps to make the teaching environment more interesting and engaging. Cost and transportation of materials work as barriers for the practice teachers to imply those in executing live classes [25]. Additionally, the non-availability of supporting infrastructures and human factors are hindrances to the use of audio-visual aids in the schools [26]. The average score for implementing three steps of the teaching-learning process was not satisfactory. Allocated time for the instruction as well as the pressure of completing the syllabus hinders the student teachers to execute three steps of the teaching-learning process properly.

The practice teachers' responses on Micro-teaching and simulation course were mixed and the result showed a mean score which is moderate. In qualitative data, some practice teachers had a positive attitude towards the course although they faced challenges in applying knowledge. In addition to that, practice teachers did not make proper use of Bloom's Taxonomy. Practice teachers did not get enough time for creative thinking because of a busy working schedule [24]. Moreover, the learning outcomes of the students are poor to imply higher-order questions [27] which is also similar to the findings of our research.

This paper shows the implementation gap of practice teachers in real classroom settings. Teachers' preparation and readiness of the classroom are very much necessary to ensure proper implementation of the theoretical knowledge. Government and policymakers should be aware of these problems and must take proper steps for the betterment of the current situation. The curriculum and practices for the teachers should be more contextual according to the classroom settings in Bangladesh. Moreover, the classroom environment and infrastructure need to be improved. More researches should be conducted to connect the theory and practice of teaching in Bangladesh.

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