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Unveiling Teachers' Assessment Bias and its Link to Practice of Shadow Education

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ABSTRACT

Assessment means assessing someone but it denotes more than just assessing someone in education whereas shadow education indicates to private tutoring arranged beyond formal education aims to attain better academic achievement. Many teachers in Bangladesh are involved in shadow education on a paid system who are teaching the same students in school. This qualitative study aims to explore whether teachers' assessment practice is biased and how this bias is linked to their involvement in private tutoring. Different types of assessment practice of the teachers are as consequences of shadow education practice such as bias in summative assessment, bias in formative assessment, intentional bias, and unintentional bias. Among these four, bias in summative assessment, bias in formative assessment and intentional bias are directly linked with the shadow education practice. The teachers are practicing 'favoritism' to reward the students who take private tuition from them and they are practicing 'unfair penalization' to punish the students who do not take tuition from them. However, unintentional bias cannot be linked with the shadow education practice of the teachers. Therefore, the teachers should practice fair assessment practice to promote the learning of the students learning even though they are involved in shadow education practice.

1. Introduction

Assessment plays key role in teaching-learning activities which directs learning in a positive sense throughout giving feedback to learners and assessing their performance. It is the primary guidance and feedback provider to learners (Sambell et al., 1997). Gipps (2011) states that assessment is a wide range of methods for evaluating pupil performance and attainment including formal testing and examinations, practical and oral assessment, a classroom-based assessment carried out by teachers and portfolios. However, many factors might influence in assessment process where the teachers can play a positive role of both feedback provider and students' performance evaluator. In this process whether the teachers are involved in fee-charging private tutoring, there is a chance for him/her

favoring the students with good grades (Kobakhidze, 2014) which may leads to bias in assessment.

The education endeavor is dependent on the quality of learning that it can produce. If the assessment of learning unable to meet the demand of assessment for learning, the learning system will undermine the spirit of education and cannot achieve expected learning outcome. However, it is difficult to perfectly pinpoint the bias in assessment as it varies from person to person. On the other hand, teachers' practice of shadow education can affect both formative and summative assessment because many teachers create a parallel education system to regular school (Bray, 2011). Despite have restriction to offer private tutoring to own school students (NEP, 2010) in the country, many teachers are involved in private tutoring their school students in a paid system (Alam & Zhu, 2023). Guardians do not think twice to pay extra money for after/before school time tuition from the school teachers. Sometimes teachers can be biased in assessing the students as they may favor the students who take private tuition from them. If it arises, it is an instance of bias and need to be explored in a neutral stand.

This study aims to explore the biasness in assessment process caused by the teacher's practice of shadow education or fee-charging private tutoring in a school. It is evident that teachers of different countries are involved in shadow education practice or fee-charging private tuition (Harlen & Deakin, 2003) and somewhat corruption allegations have been arisen from their practice of shadow education. Relatedly, teachers may involve in unfair practice of shadow education during assessment either intentionally or unintentionally. However, this study instigates the relationships between assessment bias and shadow education practice of the teachers in Bangladesh. Various stakeholders may gain insights into the practice of shadow education and its negative influence on the assessment process.

Research Questions

The study aims to examine the assessment bias stemming from teachers who engage in private tutoring outside school hours and premises, either before or after regular school time. Therefore, the following research questions have been developed to address the above-mentioned aim.

1. To what extend biasness in assessment practice is existing among secondary school teachers?
2. What types of bias do exist in current assessment practice?
3. How does private tutoring influence assessment process in teaching learning activities?

Review of Literature

Discussions have been progressed through assessment, shadow education, shadow education practice in Bangladesh, bias in assessment, shadow education and its biasness in assessment.

a. Assessment

Assessment refers assessing someone or something that defines the level of students with different tools (Newton, 2007). In the field of education, assessment denotes more than just assessing something or someone. Joughin (2009) argues that it is very complicated to define the term 'assessment', especially in the field of education. He claims that assessment means judging a students' work. Dawson (2009) defends the term 'assessment' that lies within the purposes and motivations of assessment. In this study, assessment is known to be the processes or methods which have been used to measure the learning of students.

b. Shadow Education

Shadow education has gained global visibility over the decades (Bray, 2010) that refers to the private tutoring or additional study care for students other than school, since it imitates the mainstream (Bray & Lykins, 2012). The teachers who are involved in private tutoring in a paid system teach their students before or after school either face to face or via the internet in single or multiple groups (Bray, 2011). Mori and Baker (2010) state that shadow education works as the academic achievement booster for the most of pupils.

The phenomenon of shadow education is alarming in Asia (Bray & Lykins, 2012) and being seen in India too (Bray & Kobakhidze, 2014). It is a neighbor country of Bangladesh and can be compared as these two countries resemble in terms of educational endeavor. In India and Bangladesh, school teachers who are involved in shadow education usually try to convince students to attend private coaching of the teachers (Mahmud & Kenayathulla, 2018; Alam & Zhu, 2023). Ghosh and Bray (2018) show in their study that the students (52.5%) of secondary school receive tutoring in Bengaluru, India. How alarming it may seem Bangladesh surpasses all the examples of other countries as the school teachers, directly and indirectly despite have restrictions, are involved in shadow education which presents a unique scenario.

c. Shadow Education Practice in Bangladesh

The practice of shadow education by the mainstream teachers in Bangladesh is extremely common. In 2023, 70% of primary students and 76.5% of secondary students take private tuition (Alamgir, 2024) although Alam & Zhu (2022) shows that approximately 75% of secondary school students and 35% of primary school students in Bangladesh receive some form of private tutoring. The teachers of English, Mathematics and Science subjects are mainly involved in shadow education practice in Bangladesh (Hamid et al., 2009; Alam & Zhu, 2023). They argue that teachers are mainly involved in shadow education to teach their students from school because of their poor salary despite have ethical issues. The mainstream teachers are now rising rapidly in shadow education compared to previous decades although fee-charging private tutoring has been restricted by the Bangladesh Government (NEP, 2010). However, many coaching centers are being set either in city or small town to promote fee-charging private tuition.

d. Bias in Assessment

Assessment bias is of two types- offensiveness and unfair penalization (Popham, 2006). Offensive refers to the bias where negative stereotypes are included in the test while unfair penalization means disadvantaging one group of students (Popham, 2006). Unfair penalization occurs when a particular topic that has not been discussed in the class but in tutoring session seems to be administered in-class test or examinations. Students cannot simply answer such questions as they do not know about the topic very well. On the other hand, shadow education boosts up the students' achievement (Byun, 2014; Alam & Zhu, 2023), claimed by teachers who assess and grade the same students in the school as well as in private tuition. Conversely, unfair penalization disadvantages one group while favoritism favors unfairly an individual or a group of students over other students.

e. Shadow Education and its Biasness in Assessment

Many teachers are involved in shadow education practice to own school students either rural or urban in Bangladesh (Mustary, 2019). It is not only the phenomenon of developing countries but also seen in different developed countries. Bray (2011) claims that private tutoring is common in many countries and has been proven positive for the students' grade (Byun, 2014) if it keeps unbiased and untouched from school assessment. Kobakhidze (2014) reveals that shadow education practice can create opportunity for better grade to the students who take private tuition from their school teachers which is indeed a bias in assessment.

The study of Dawson (2009) on the shadow education practice of Cambodian teachers shed light on the corruption of the school teachers which implies that the impact of the shadow education practice of the teachers cannot be taken lightly. A different study done by Zhang (2014) in China also strengthens the claim of Dawson (2009). Zhang (2014) is worried about some teachers who are involved in unhealthy shadow education practice because they have opportunity to punish or reward the students that can force them attend in private coaching (Choe et al., 2013) of the teachers by offering them special privileges.

f. Research gap

Many researchers accomplish prominent work on the relation between shadow education and its unhealthy practice in school assessment system in national and global perspectives. Dawson (2009) claims that most of them are mainly on gender bias, racial bias and bilingual bias. In addition to these different studies have been done to address the shadow education problem as well as the problems shadow education creates. In Bangladesh, many studies have been found that discuss about private tutoring and its effect on education (Nath, 2008; Mustary, 2019; Alam & Zhu, 2022). Despite all the core problems regarding shadow education practice have been addressed, a very few of these explores its biasness in assessment process, the unique scenario in Bangladesh.

2. Methodology

Qualitative research design was followed in this study. Creswell (2007) stated that qualitative research is the best fit to a research problem when a researcher does not know the variables and wants to explore more. The data were collected from a reputed secondary school of eastern area in Bangladesh having a sound academic record. The schools have 54 permanent teachers for 1795 students. The participants were selected purposively but had a strong relationship with the phenomenon of the study problem. Altogether six students were requested to participate in the interview. Among the participants, three of them were continuing private tuition in their own school teachers while rest three did not participate in tuition at all. Similarly, the alike strategy was followed for selecting six teachers for interviewing who were involved and did not involve in private tuition.

Interview protocols were used for in-depth conversations with students and teachers. The data has been analyzed to get result through Thematic Analysis as this study is deductive in nature. All ethical issues were noticed in collecting or analyzing the data. All the participants were given knowledge about the study and assured about keeping secret of their identity. Moreover, they were informed that the information would be used only for academic purpose without mentioning their name including their schools' name. Then, they provided consent verbally. For the students, it was taken verbal consent from their guardians as they were below 18 years old.

3. Results and Discussion

The results regarding bias in assessment present in three themes like existence of bias in assessment practice; types of bias; and influence of shadow education on assessment practice.

a. Existence of Bias in Assessment Practice

Bias in assessment negatively impacts on teaching and learning, often discouraging students and diminishing their interest in education. All six interviewed teachers claim themselves as bias-free in assessment although three of them practice fee-charging shadow education. Among the participants, three teachers acknowledge the potential existence of unintentional bias while two students differ with the statement of teachers. One of the students [S6] who does not take private tuition from his school teacher, stating, "teachers sometimes deduct marks when students do not follow the methods they have taught in class" highlighting an example of assessment bias. The 'favoritism' is another challenge in assessment because the students who admit for tuition perform better in formative and summative exams claimed by two students [S5 & S6]. Additionally, some students receive higher grades whether their parents keep contact with teachers, regardless of their poor academic performance.

A teacher [T3] involved in shadow education admits favoring students with good handwriting, stating, "I reward more numbers to the students who present their answers nicely in script." This practice disadvantages students with poor handwriting, potentially discouraging them from studying. Another one [T4] who is not involved in shadow education, admits, "I sometimes offer better marks in assignments to motivate obedient students." This finding suggests that obedience, rather than merit, can be influenced grades. Furthermore, a student [S5] stating, "I think teachers sometimes provide better grades to the students who attend their coaching classes," directly linked with private tuition that represents the bias in assessment.

b. Types of Bias

Assessment bias can take in different forms, each negatively impacting learners and potentially demotivating them from achieving their learning goals. However, the study identifies four types of assessment bias in school:

i. Bias in Summative Assessment: Summative assessment, conducts through half-yearly and final examinations, reveals mixed opinions about its fairness. Two students highlight assessment bias linked to private tuition. A student [S2] agrees, "I feel like that I am getting better marks from the teacher for taking private tuition" suggesting favoritism. Another student [S6] keeps himself away from private tuition, illustrates, "students who take private tuition from their teachers tend to achieve better marks." Instance of favoritism in grading during exams, such as rewarding students for good handwriting or obedience, highlighted by teachers [T3, T4].

Additionally, some teachers penalize students for not adhering to specific methods taught in class or coaching. A teacher [T3] confirms, "Math teacher penalizes students if he/she does not follow the methods." Additionally, a student [S4] states, "we get better marks in Math if we follow taught methods, otherwise get zero."

All teachers admit that they deliver suggestions onward the exam. A teacher [T5] has justified this practice, claiming, "suggestions are given to all for boosting performance." On the other hand, a student [S2] claims "suggestions before examinations help those who take tuitions from the teachers...." So, it is evident that the students who take private tuition from school teachers may get suggestions before examinations which is also a clear example of favoritism.

ii. Bias in Formative Assessment: Formative assessment indicates evidence of bias by its unfair uses. While 10 of 12 participants refute bias in assessment, data indicates otherwise. A student [S6] illustrates, "teachers know the students better if they take private tuition and pay more attention to them in the classroom" potentially alienating others. A teacher admits giving better grades in assignments to motivate specific students, regardless of the quality of their work [T4].

Conversely, a student [S1] states, "teachers try to check everyone's task... they do not give more focus to anyone." Three students highlight unequal attention due to time constraints in class with 50–70 pupils. Four teachers explain their inability to provide equal feedback due to large class size and time limit for a class (45–50 minutes).

iii. Unintentional Bias: Unintentional bias, often subtle and difficult to identify, stems from human error or unconscious actions. All six teachers acknowledge the possibility of such bias in their practice. A teacher [T1] involved in private tutoring admits, "as a human being, I can make mistake while assessing answer sheets, but I try to remain bias-free." Similarly, another teacher [T4] who keeps away from shadow education illustrates, "teachers might stipulate more or fewer numbers to students by mistake... not intentionally." Teachers are often unaware of their biased practice, such as favoring students who present their work attractively or follow specific methods [S6, T3].

A student [S4] shares instances of unintentional bias, "once I was given fewer marks because the teacher forgot to count and added all the marks... but when I pointed it out, the teacher corrected it." Although it had been corrected, such mistakes can undermine the assessment process and potentially demotivate students.

iv. Intentional Bias: Intentional bias arises from personal mindsets or negligence, manifesting as favoritism or unfair penalization. Evidence from interviews unveils its existence in assessment process. For example, students [S2 & S6] attending private tuition report better grades compared to others. A teacher [T3] admits penalizing students who does not follow prescribed methods, stating, "Math teacher penalizes students for not following the methods demonstrated in class." Student [S6] reports evidence of deliberate favoritism, such as giving better grades to students attending private tuition or those whose guardians maintain close contact with teachers.

c. Influence of Shadow Education on Assessment Practice

The data indicate multiple bias in assessment practice including intentional and unintentional bias in both formative and summative assessment. These biases are often linked to teachers' involvement in shadow education. For instance, a student [S6] stating, "students who attend a teacher's coaching classes typically perform better in exams, and teachers often reward them for taking private tuition."

Among the interviewee, three students [S1, S3, S4] claim that teachers are fair in their grading. They believe that the students who take private tuition from the teachers do not get any special treatment. A student [S4] who does not take private tuition from a school teacher, believe that teachers are fully fair in assessment process. Furthermore, she states the teachers who are involved in shadow education provide fair feedback and assess properly. She illustrates,

.....meritorious students simply do better in the examination. It does not matter whether he/she take private tuition from the teachers or not..... Students who are attentive in the class do better in the examination and

classes..... Teachers love them whatever he/she takes private tuition or not [S4].

However, a student [S2] contradicts the claims of S4. He argues,

.....I participate in the Mathematics and English coaching class of teachers..... I feel like I am getting better marks from the teacher for taking private tuition from them..... I cannot express it properly....you know... . For example, suggestions before examinations help those who take tuitions from the teachers...

Some teachers have intentional bias in assessment despite have no relation to shadow education. For example, a teacher [T3] states, "I tend to give more marks to students who present their answers well, and I don't consider it unfair." Another way of biasness is rewarding obedient student with more marks in assignments, which is a clear case of bias [T4]. These practices contradict the fundamental purpose of assessment, which is to evaluate learning rather than handwriting or behavior.

Teachers and students confirm that suggestions for exams are given both in classrooms and coaching centers. However, some students believe that private tuition makes an advantage by its beneficiaries. A student [S6] claims that important topics have been highlighted in coaching sessions.

In brief, different types of bias due to shadow education are practicing in assessment system at the school. Intentional bias, unintentional bias, bias in formative and summative assessment are directly linked with the shadow education practice of the teacher. Giving special privilege before the examination is another sort of assessment bias that clearly refers to bias in assessment practice. The study also has found that there is also unintentional bias in the assessment practice of the teachers. However, unintentional bias has not been linked with the shadow education practice of the teachers.

Discussion

The study reveals that bias in assessment practice is prevalent among teachers particularly those are involved in shadow education practice. Therefore, several types of bias in assessment practice directly linked to shadow education exist within the school system either intentional or unintentional. It happens in both formative and summative assessment which is similar with the findings of Bray (2011). Teachers often offer private tutoring students with special privileges before examination, pay more attention, and provide detailed feedback, that clearly indicates bias in assessment, and it upholds the findings of Dawson (2009). Among the six teachers five of them decline the idea of giving special privilege to the students of private tutoring while another teacher claims that providing suggestions is common practice. Offering privilege is a classic example of bias in the assessment practice while Aydogan (2008) states that giving privilege is one sort of favoritism where some students get benefit compared to other students. Zhang (2014) claims in his study that the students who attend in private coaching

of the teachers get more privileges than the rest of the students. On the contrary, sometimes the students who do not take private tuition are ignored in classroom activities or threatening to give lower marks to those who refuse (Alam & Zhu, 2023). This is an example of offensive bias. Popham (2006) argues that an assessment that is most likely to be offensive to a group is an example of offensiveness. The teachers favoring the students who take private tuition from them is an example of favoritism, found in this study and can be linked with the study of Aydogan (2008).

The mixed opinions have been unveiled among the students who participate in tuition and do not take tuition regarding the bias either in formative or summative assessment in school, caused by teachers' shadow education practice. Conversely, all the six teachers irrespective of involvement in shadow education claim that they are fair in their assessment practice. However, it is evident from the study that the shadow education practice of teachers influences the assessment. Intentional bias in formative and summative assessment appears to be influenced by teachers' involvement in private tutoring what is harmonized with Bray (2014). Additionally, bias in grading also appear in the form of both intended and unintended favoritism. For instance, students with better handwriting or who exhibit more obedience tend to receive higher grades, that views are morally unacceptable favoritism (Cottingham, 1986). Rosset (2008) argues that unintentional and intentional bias are totally dependent on the perception of an individual. Therefore, it can be said that intentional and unintentional bias are sometimes very confusing as one person may denote any incident as intentional; on the other hand, one person may find it unintentional. The teachers who award better grades intentionally to the students can be called intentional bias. Therefore, this intentional bias may be linked with the shadow education practice of the teachers.

The study confirms that the existence of unintentional bias in assessment is not always directly associated with shadow education practice. The findings unveil that some bias originate from systemic influences, others may result from unconscious decision-making by teachers. Whether the teachers are doing unintentional 'human error', they need proper training regarding assessment. Hardré (2014) argues that unintentional bias possesses a serious threat to fair assessment practice and can hamper the objectivity of assessment. Boysen (2010) argues that unintentional bias depends on the teachers' skills and knowledge.

Another form of bias has been unveiled in Math wherever students are penalized for using alternative problem-solving methods that differ from the teacher's own method. This practice of penalizing students for not following the prescribed approach contradicts the idea that multiple methods can be valid in solving math problems. Popham (2006) emphasizes that penalizing students for not knowing techniques beyond the classroom, such as methods introduced in private coaching sessions, is an unfair practice. These findings collectively underscore the need to address bias in assessment to ensure fairness and equity in education. However, bias undermines the integrity of the assessment system and hinder equitable learning outcomes.

4. Conclusion

The study reveals the perception of both teachers, students and parents. It has identified four types of bias in the assessment practice in the school. The intentional bias, bias in formative assessment, and bias in the summative assessment are directly connected with the shadow education practice of the teachers. However, unintentional bias has not been linked with shadow education practice. The teachers are required fair assessment practice whether he/she is involved in shadow education to enhance students' learning. They need to follow the restriction about the shadow education practice his/her school students outside of the campus, suggested by the NEP (2010), Bangladesh. The teachers, parents and school authority can work together to promote bias-free assessment. Schools can organize teachers-student-guardian meetings to address the different teaching-learning problems of the students while government should arrange specialized training on assessment practice that can minimize the risk of bias in the assessment practice. Similarly, teachers should be awarded by different incentives for their positive endeavors in teaching learning activities. In conclusion, this study provides important insights into the existence of assessment bias among secondary school teachers and their potential link to shadow education practice.

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