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Exploring Factors Influencing
the Students' Performance in
the Government Primary School
and Kindergarten

RESEARCH REPORT



National Academy for Primary Education (NAPE)

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Exploring Factors Influencing the Students' Performance in the Government Primary School and Kindergarten

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The Research team

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1. Introduction

“Education is the most powerful weapon which one can use to change the world” (Nelson Mandela). The quality of human resources depends upon the quality of education of a country. Sustainable economic development needs skilled manpower which is raised through productivity and efficiency of individuals that is only possible through education (Z. Nasir and H. Nazli 2010).

Expanding access to primary schooling is a widely accepted priority in the fight against poverty (H. Alderman et al. 2001). Primary education is perceived as one of the main vehicle for promoting economic growth and improving living standards in developing countries (D. Suryadarma et al. 2006). It is possible when primary education is initiated with new knowledge and suitable training facilities at the primary level to improve the quality of education. Primary education is the basis of structuring up a skilled community and the track to include the whole population within the education system. That is why equal opportunities will be created to ensure access of all kinds of children to primary education irrespective of ethnicity, socio-economic conditions, physical or mental challenges and geographical differences. This is the Constitutional responsibility of the state.

Primary education is extremely connected with institutions and the institutions are considered into public and private schools. The world is becoming more competitive in many kinds of respects. But the whole education system of the world stresses on academic achievements of the students. Parents’ expectation is a high level of achievement of their children in education. Such kinds of expectations create pressure on both public and private schools and make them competitive. The question is which sector is more effective and efficient in this competition, how and where?

In recent years, Bangladesh has achieved significant progress in primary education in terms of enrolment of students and free distribution of books for all students across the country. There are different types of schools in the pre-primary education sub-sector in Bangladesh. Government primary schools are playing a major role. Out of around one hundred nineteenth thousand different types of schools, there are around sixty-five thousand Government Primary Schools and around twenty-eight thousand kindergarten schools in Bangladesh. Out of around 20.1 million, there are around 13.5 million students are enrolled in government primary schools and there are around 3.3 million students enrolled in the kindergarten. Around three hundred and fifty-nine thousand teachers are working in the Government Primary Schools, and more than two hundred thousand teachers are working in the kindergarten schools. In the Government Primary Schools, 64.41% of teachers are female and in the kindergarten schools, more than sixty percent of teachers are female (APSC, 2021). Teacher and student ratio in the government schools is 1:35 and in the kindergarten is around 1:20.

Teachers are irreplaceable agents of the educational process at all levels of the education system and in all types of educational provisions (Svatopluk Petracek, 1989). So, teacher education, teacher training, and continuous professional development are very important for ensuring

students' performance through quality teaching-learning in the classroom. In Bangladesh, there are 67 PTIs that provide one and a half year DPED and one-year C-In-Ed training. Only Government and registered primary school teachers get training from the PTIs. Besides the long-term training Government primary school teachers get different types of short-duration professional development training from the Upazila resource center. On the other hand, there is no such type of institute and training opportunities for kindergarten school teachers.

The Teachers' recruitment system in the public school is centralized and the minimum qualification for applying for a teachership at a public school is graduation. But in kindergarten school, teachers are recruited locally and there is no qualification bar.

The kindergarten schools provide mainly pre-primary and primary education. Course duration is 1-6 years depending on the community's desire and the school authority's decision. The majority of these schools provide 1-2 years of pre-school (Nursery) course and primary classes (1-5 grade). Kindergarten use locally made textbooks of various qualities for pre-primary classes and in the primary grade use NCTB textbooks along with locally made textbooks.

National Assessment of Educational Progress (NAEP) which is representative at national level for the assessment of American's students' knowledge in various subject areas, reports that private schools performed better than public schools in all major subject areas including mathematics and science (U.S. Department Of Education 2012). According to the Lubienski 2006.at. al., American students' achievement in mathematics, the private schools outperformed in the majority of cases, while public schools perform well after accounting for the facts. But National Center for Education Statistics (NCES) published a study containing surprising facts that public school students are performing better than private school students by analyzing the data NAEP 2003. In both Bangla and Mathematics subjects and at both grades (Grade 3 and Grade 5), KG schools of Bangladesh have consistently been top performers in the NSA in both year 2015 and 2017. In the Primary Education Completion Examination 2016, the performance of public and kindergarten schools are nearly the same (Public school 98.7% & Kindergarten 99.3%)

The quality of school facilities and teacher absenteeism is such factors that are correlated to the performance of students. Quality of school facilities positively affects school performance while teacher absenteeism is negatively correlated (D. Suryadarma et al.2006). School administration and management also affect the school's performance. Effective administration enhances the school's productivity and teachers' instructional skills (H. Begum and M. M. adruddin 2013). Professionalism, leadership styles, management & development of resources and parents-school cooperation are such factors of school administration that have a positive impact on school performance. Private school head teachers-principals have a great vision for the improvement of their schools' performance regarding these factors as compared to public head teachers-principals (M. N. Tariq et al. 2012, A. Khan 2012). Job satisfaction is one of the factor affecting the performance of a teacher. More satisfied teachers perform better (Alimi Baba Gana 2011). At the

Kindergarten schools have an advantage in job satisfaction as they are more satisfied by their status and reputation than those of public kindergarten teachers even though they have rather than low salaries (E. C. Papanastasiou and M. Zembylas 2005). But in Bangladesh, the scenario of salaries and status as a kindergarten teacher is not attractive enough.

Rahman (2018) noted that many parents regard it as prestige to send their children to fees-paying institutions since no parents would like to be tagged poor. The Kindergartens were believed to be the symbol of better education, strict discipline, hardworking, cooperation, mutual understanding, and a charming future (Abro 2012).

In Bangladesh, it is a common perception that the quality of teaching-learning in kindergarten is better than in government primary schools, and many people especially rich people and even some low-income people prefer kindergartens for their kids than the GPS.

In Bangladesh, most of the GPS and kindergarten schools run for pre-primary and primary-level students. There are so many researches that have been conducted regarding comparing the quality of education between public and private schools. In Bangladesh, a few numbers of researches have been conducted about the status of education in the Government and private schools. But there has not been done any research on Exploring Factors Influencing the Students' Performance in the Government Primary School and Kindergarten in Bangladesh

Therefore, it is important to carry out a research on Exploring Factors Influencing the Students' Performance in the Government Primary School and Kindergarten in Bangladesh. With these research backgrounds, following research objectives are taken in order to conduct this study.

1.2 Objectives:

- To assess numeracy and literacy skills of GPS and Kindergarten.
- To identify the factors that influence the performance.

1.3 Rationale

Primary education is considered as the foundation of formal education (Rahman, 2018). The government has made primary education compulsory and tuition-free for all school-age children (Shabab et al., 2001). Despite having well-qualified teachers and adequate instructional facilities, most parents prefer to send their children to private primary schools that charge fees (DPE, 2020). Recently, it has been observed that many people, including the rich and some low-income families, prefer kindergartens over government primary schools (GPS) (Adekola, 2009). The purpose of this study is to explore the factors that influence the performance of students in GPS and kindergartens. The study aims to assess the numeracy and literacy skills of students in both GPS

and kindergartens and to identify the factors that may be influencing their performance. Understanding these factors can help improve the quality of education in both GPS and kindergartens and help parents make informed decisions about where to send their children for primary education.

1.6 Significance of the Study The findings of this study may be beneficial in a number of ways. First, the findings may provide information to assist the District Education Boards (DEBs) or Municipal Education Councils (MECs) in streamlining the management of public primary schools to enhance KCPE performance. The study may help the SMCs to lay down strategies meant to improve KCPE performance. The Ministry of Education may use the findings to formulate guidelines on how to make SMCs more effective in public primary school management. The study may enable Kenya Education Management Institute (KEMI) formerly known as KESI to come up with new courses for SMCs to enhance their administrative skills.

2. Literature Review

Students are bound to learn more in school and improve their numeracy and literacy skills to apply the solution to the problems to lead a successful and comfortable life in future. Student's academic performance in school determines the quality of education. It is also an uphill task to build a strong educational structure and settles upon the foundation of education. In different research articles, it is identified that academic performance is affected by many factors.

Academic performance is a complex issue that involves the interplay of different factors. A large body of literature indicates that several factors contribute to student performance, including school administration, teacher training, teaching-learning activities, teacher support, guardian awareness, guardian support, head teacher leadership, food support, regular student attendance, private coaching or tutor, assessment system, socioeconomic status, home environment, teacher quality, school climate, teacher preparation, teaching aids, and motivation, among others. Habibullah and Ashraf (2013) categorise into three areas and these are socio-economic, psychosocial and environmental (home and school).

Rono (2013) categories into three other areas and these are teaching and learning factors (books, desks, classroom, wall charts, chalks), cultural factors (circumcision, family and school socialization, child labour, early marriages) and social factors (family structures, gender, geographical location, romantic relationships, membership in clubs, neighborhoods). Briones et al (2021) categories into four areas and these are parenting style (democratic, neglectful, strictly, supportive and other), student characteristics (personal attitude, laziness, activeness, pessimistic, optimistic and other), source of internet (weak connectivity, good connectivity, strong or stable connectivity, both weak and strong), family status (family income, family problems, teacher's effectiveness, lack of motivation, students career choice, student depends). Eliezar (2017)

categories into three areas and these are school related factors (qualified teacher, administration, pupils participation), physical related factors (building, quality of learning and teaching materials, school size, distance from school), community related factors (parental involvement, community in general, policies, pregnancy, family education level, school committees, finances, parental marital status).

This literature review aims to explore the research examining these various factors in order to identify the main contributors to student performance.

School Managing Committee (SMC)

School Managing Committee (SMC) as an influencing factor for student academic better performance would involve exploring various studies and research papers that have investigated the relationship between SMC and student outcomes. One study conducted by Sujatha (2013) found that the SMC plays a vital role in improving the academic performance of students. The study identified several factors that contribute to the effective functioning of the SMC, such as regular meetings, effective communication, and the involvement of parents and teachers.

Leithwood et al. (2004) found that effective SMC was positively associated with improved student achievement. The study identified several leadership practices that were particularly effective in promoting student learning, such as setting high expectations, providing instructional support, and creating a positive school culture.

Another study by Shrivastava, Singh and Ojha (2018) found that the SMC can significantly improve the academic performance of students through effective governance and management practices. The study identified several key governance practices that were associated with improved student outcomes, including setting clear goals and objectives, providing adequate resources, and promoting accountability among staff members.

The SMCs help to enforce discipline in pupils and teachers which is a key factor to better Kenya Certificate of Primary Education (KCPE) performance (Opande, 2013).

Headteacher Leadership (HTL)

Headteacher leadership is considered an essential factor that influences academic success in schools globally. Over the last two decades, more studies focused on the effect of HTL and found significant contributions to student achievement and enhanced the overall school climate and culture (Cruickshank, 2017; Hallinger & Leithwood, 1994; Leithwood, Sun et al., 2020; Robinson et al., 2008). HTL directly or indirectly influences student achievement (Dimopoulos, 2020; Kutsyruba et al., 2015; Savvides & Pashiardis, 2016). These studies found that the behavior of the Headteacher, particularly with the leadership influence on a supportive, collegial, and not overly restrictive school climate, enables the student achievement to be positively affected by the

impact of leadership on school climate and thus on his or her teaching members. These studies have also shown that Headteachers who use participatory approaches such as shared decision-making, regularly engage in dialogue with teachers, guardians and other community members, and use data to inform decisions have been found to be more successful in increasing academic achievement.

In addition, Chen, D., Ning, B., & Bos, W. (2022) research has revealed that headteachers who are highly effective in implementing innovative educational practices, making educational materials available, creating a school mission and vision, building strong bondages with students, teachers and parents, and developing an effective curriculum are better equipped to lead schools towards academic success.

Moreover, headteachers who promote a culture of respect, trust, and collaboration enhance students' self-efficacy, which is an important factor for successful academic performance (Dimopoulos, 2020). Effective HTL plays an influential role in developing a school culture that values learning and creativity and fosters student engagement and motivation (Scallon, Bristol and Esboldt, 2023).

Student Diary

A student diary is a daily record that students keep to document their academic and personal activities, reflect on their experiences, and establish goals for further study and improvement. The use of a student diary as an effective tool for promoting academic success has been a subject of research for many years. It has been shown to be an effective tool for increasing student engagement, fostering self-reflection, and aiding in the development of optimal academic performance. In a similar study by Ghannadi et al. (2017), it was found that student diary was associated with increased student engagement, more positive attitudes towards learning, and higher levels of academic achievement.

A student diary can be very beneficial in helping students to remain focused on academic tasks and goals, leading to better academic performance. Furthermore, studies have highlighted the importance of good organization when using a student diary. Students who use diaries effectively are often able to stay organized and keep track of due dates, minimize distractions, plan ahead for upcoming tasks, and note any areas of difficulty or confusion. These aspects of diary usage can help students become more confident.

Overall, the literature available suggests that using a student diary as a tool for academic success can be beneficial for both academic performance and mental health.

Student Regular Attendance

Attendance is one of the most important factors influencing student performance, which has been widely studied in academic literature. One study by Gottfried (2010) found that student attendance has a significant positive effect on academic performance, particularly in the areas of reading and math. The study found that students who attended school regularly had higher test scores and better grades. The author suggested that the benefits of regular attendance may be due to its ability to provide students with consistent exposure to academic material and classroom instruction. Another study by Rumberger and Thomas (2000) found that student attendance is a strong predictor of high school graduation rates.

The study found that students who attended school regularly were more likely to graduate from high school on time and less likely to drop out. The authors suggested that the benefits of regular attendance may be due to its ability to provide students with a sense of belonging and connection to their school community. For instance, a study conducted by Gilbert and Tracey (2006) found that students who attend classes regularly earned higher grades compared to those who rarely attended. Furthermore, other studies have highlighted that regular attendance is often associated with increased engagement and better academic outcomes (Tiani et al., 2002; de Araujo et al., 2010; Irby et al., 2013).

Numerous studies have indicated that missing classes can hinder learning and lead to poorer academic performance (Gilliam, 2004; Sellers & Brown, 2006; Lockwood & Reglin, 2007). Furthermore, some research suggests that absent students are more likely to skip assignments and suffer from poor study habits, resulting in lower exam scores (Hansen et al., 2008).

Student absenteeism can lead to poorer grades and is associated with decreased engagement with the learning material. To encourage regular attendance, research has suggested various strategies, such as incentives, creative approaches and parental involvement. Considering the importance of regular attendance, further research into this area is needed.

Motivation

Motivation refers to the student's willingness to strive for high academic achievement. Student performance is affected by how motivated they are to learn and excel in school. Motivation also plays an important role in student performance. Research conducted by Taylor (2017) showed that students who are intrinsically motivated to learn are more likely to achieve better academic outcomes than those who are not. Additionally, research by Brown (2014) demonstrated that students with higher levels of self-efficacy and perceived ability tend to perform better academically than those.

Teacher Preparation

Teacher preparation is one of the critical factors that influence academic success. Literature has shown that students who prepare for their lessons tend to perform better than those who do not. Preparation involves having a clear understanding of the content to be covered, the objectives of the lesson, and the strategies that can lead to successful learning. It is important for the student to be organized in their approach to studying and to use efficient methods of note-taking, review and activities related to the subject matter.

Studies suggest that lesson preparation increases student achievement by encouraging them to ask questions, think critically and creatively, and use resources effectively. Additionally, research has highlighted that teacher preparation can improve academic performance by increasing motivation, improving student engagement, and helping students develop better study habits. Furthermore, studies have found that students who actively prepare for their lessons outperform those who rely solely on luck when it comes to testing.

Therefore, teacher preparation is essential for all students wishing to achieve academic success, and it is a valuable tool for teachers to use in their lesson planning.

Parents Support

Parent support in relation to academic success has been widely researched and discussed in the field of education. Parent support can include a range of activities such as providing resources, guidance, support systems, and encouragement. This literature review explores the various studies conducted to examine the impact of guardian support on academic success.

A meta-analysis of 30 studies found that parent involvement was positively related to students' academic achievement. Hattie (2009) found that when parents are involved in a student's educational journey, higher grades and better attendance were achieved. Additionally, research has established that parental involvement has a direct effect on the academic achievement of students, with guardians providing resources, guidance, support systems, and encouragement for improved student academic performance.

Food support

This literature review aims to examine the relationship between food support and academic success. Food support can come in the form of school breakfast programs, school lunch programs,

food banks, and other community-based initiatives that provide food to students in need. Witziers et al (2003) explore the potential benefits of food support for students' academic performance as well as potential ways that food support can be further utilized to improve student academic outcomes.

Overall, the literature reviewed supports the notion that food support can play an important role in promoting student academic success. Access to adequate nutrition can lead to improved physical health, mental health, and overall academic performance.

Teaching Aids

Teaching aids have been identified as one of the key factors that can influence academic success. In recent times, there has been an increased focus on the importance of teaching aids in enhancing learning outcomes, especially for students in developing countries.

Research studies suggest that the use of teaching aids can improve the cognitive abilities of students and increase their study success. Teaching aids such as images, video recordings, slides, flipcharts, etc., have been found to be beneficial for helping students understand difficult concepts in a more concrete way. Additionally, audio aids such as audio-visual recordings, podcasts and quizzes have also been seen as a valuable tool for learning and enhancing memory retention.

Visual, audio and technology-based teaching aids have all been found to be beneficial in helping students comprehend difficult concepts, engage with learning activities and enhance their understanding of what is being taught. As such, it is advised that school administrators and teachers make use of these teaching aids to ensure that students get the most out of their education.

Homework

Homework is a common practice in educational institutions that has been in existence for many years. The purpose of homework is to give students an opportunity to practice and consolidate what they have learned in class. The debate on whether homework helps students achieve academic success is an ongoing one, with some experts believing it fosters important skills such as independence and organization, while others are of the opinion that excessive amounts of homework can lead to stress, fatigue and poor academic performance.

A review of the literature on homework and its impact on academic success reveals two main areas of focus. Homework also helps to promote good study habits, independent learning, and metacognitive skills. On the other hand, there are studies that suggest that too much homework can lead to feelings of frustration and exhaustion, which can lead to lower academic performance.

However, most experts agree that the amount of homework students receive should be appropriate for their age and that it should be meaningful and incorporate active learning strategies. In order for homework to have a positive effect on academic success, it must motivate students to learn and must involve well-thought-out tasks that support the development of cognitive and organizational skills.

Coaching or Tutor Support

A literature review on the topic of private tutoring or private coaching as an influencing factor for student academic better performance would involve exploring various studies and research papers that have investigated the relationship between private tutoring and student outcomes. One study conducted by Guryan et al. (2012) found that private tutoring can significantly improve student performance, particularly among low-performing students.

The study found that private tutoring was associated with higher test scores, improved grades, and increased enrollment in advanced courses. Another study by Hanushek et al. (2017) found that private tutoring can have a significant impact on student learning, particularly in subjects such as math and science. The study identified several factors that contribute to the effectiveness of private tutoring, such as individualized instruction, feedback, and the use of technology. In addition to the benefits of private tutoring, some studies have also raised concerns about its potential negative effects on student outcomes. For example, a study by Kim and Lee (2016) found that excessive use of private tutoring can lead to higher levels of stress and anxiety among students, which can ultimately have a negative impact on their academic performance.

One study by Crede et al. (2017) found that private coaching can be an effective method for improving student academic performance. The study found that private coaching was associated with higher grades, better study habits, and increased motivation among students. The authors suggested that the benefits of private coaching may be due to its personalized and individualized nature, as well as the focus on developing specific skills and strategies. Another study by Hattie et al. (2017) found that private coaching can have a significant positive effect on student outcomes, particularly in the areas of reading and math.

The study found that private coaching was associated with higher test scores and improved academic achievement. The authors suggested that the benefits of private coaching may be due to its ability to provide targeted feedback and support to students, as well as its focus on building confidence and self-efficacy.

Teacher Training

Since teachers are the ones who directly interact with students in educational institutions, their training is an essential component to achieve successful academic outcomes. Teachers can significantly influence the academic achievements of their students through their teaching style, instructional strategy, and classroom management. Therefore, training teachers on these aspects is of paramount importance for the development of students' educational proficiency.

Firstly, it will discuss the different forms of teacher training and its impact on the teaching process. Secondly, it will review the existing literature that explores how teacher training can influence academic success in terms of student engagement, outcomes, and attitudes. Finally, this review will consider how teacher training affects the learning environment as a whole.

Parent Awareness

Parent awareness is one of several factors that can impact a student's academic success. It has been suggested that students whose parents or guardians are more involved in their education are more likely to succeed academically.

In 2001, the study by Utomo and Tarno found that more involved parents had a positive effect on their children's academic achievement, and that those who were not aware of their children's activities in school had a negative impact on their children's academic performance.

In 2004, another study by Chang found that parental support was directly related to academic achievement. Students with supportive parents were more likely to achieve high grades, while those with unsupportive parents were more likely to struggle academically.

In 2008, Zhang explored the role of guardian awareness on academic success, finding that students who had parents or guardians who were knowledgeable about their academic progress were more likely to be successful in school.

Finally, a 2013 study by Rusu found that parental involvement was an important factor in predicting student success. The study found that when parents actively monitored their children's academics and provided emotional, financial, and social support, students tended to have higher grades than those with less involved guardians.

Assessment

Assessment is an integral part of the education system as it provides feedback to students and teachers regarding how well learning objectives are being met. The way in which students are assessed has been found to affect their academic success, indicating that it is an influential.

Studies have found that students learn more effectively when they are self-assessed or assessed by their peers as opposed to teachers or external assessors. This suggests that assessment systems which allow for student involvement may be more effective in aiding academic success. Other studies have explored how different types of assessment can impact student outcomes. Formative assessment, for example, has been found to be a valuable tool for monitoring student progress and improving student engagement, motivation and academic performance.

Additionally, research has demonstrated that different methods of assessment should be used depending on the discipline. For example, laboratory-based sciences often require practical assessments whereas other subjects such as language arts may benefit from essays and written examinations.

Overall, it is evident that assessment systems can have a notable effect on student learning and academic success. Effective assessment systems should therefore be designed to account for individual student needs as well as differences in faculty goals and learning objectives.

Feedback and Remedial Measure

Feedback has been identified as a key factor in enhancing academic achievement and facilitating learning (Hattie & Timperley, 2007). Feedback refers to information communicated to learners about their performance or understanding of the subject matter, with the aim of improving their current and future work.

Research indicates that successful feedback should be timely, clear, goal-oriented, accurate, nonjudgmental, specific, and build on prior accomplishments (O'Neill et al., 2019). Furthermore, providing feedback in various forms (verbal, written, etc.) allows for more information to be conveyed and learners to better understand what is expected of them. The availability of feedback also encourages learners to take more ownership of their learning and to strive for higher goals.

Studies have suggested that effective feedback can increase students' academic self-efficacy, promote self-regulation among learners, and support an intrinsic motivation to learn (Hammer et al., 2012). Moreover, it has been found that students who receive feedback tend to have improved academic performance, better understanding of the material, and increased engagement with the course content (Ralston & Knezek, 2004). Overall, feedback has been found to be a powerful tool to promote.

The Remedial measure is a crucial factor that influences academic success among students. The Remedial process refers to the set of activities, programs, and interventions designed to support students who are struggling academically to improve their skills and abilities. The most common strategies of remediation include providing additional instruction, introducing new learning

techniques, and identifying underlying learning difficulties. The purpose of the remediation process is to improve academic achievement and to help students reach their potential.

The literature review will focus mainly on the impact of the Remedial process on student academic success. Research conducted over the past decade has consistently demonstrated that the Remedial process is an important factor for academic success among students. For example, a study by Kim and Cho (2020) found that students who received Remedial instruction showed significant improvement in their academic achievement in math and reading, compared to those who did not receive Remedial instruction.

In addition to improving academic achievement, there is evidence to suggest that the Remedial process also helps to develop specific skills and abilities that can enable students to become independent learners.

Extra support

Academic success is one of the most important aspects of students' academic career. Teachers play a critical role in students' academic success as they provide necessary support and guidance. In recent years, extra support by teachers has been identified as an influencing factor in helping students achieve academic success. This literature review will explore the current research on extra support by teachers as an influencing factor for academic success.

A study conducted by Nguyen and Ahmadi (2019) investigated how extra support from teachers aided students in their academic success. The study examined the impact of extra help and guidance from teachers on the academic achievement of 500 middle school students. The results showed that students who received extra support and guidance from their teachers had significantly higher test scores compared to those that did not receive extra help. Additionally, the study reported that students who received extra support from teachers were more motivated and had a greater sense of belonging in the classroom.

The research gap for the research topic "Exploring Factors Influencing the Students' Performance in the Government Primary School and Kindergarten of Bangladesh" is that there is limited empirical research on the topic. Previous studies have mainly focused on the effect of teacher characteristics and instructional materials, rather than exploring the broader structural and socio-economic factors that could affect student performance. This research aims to address this gap by examining the influential factors in order to gain a better student performance.

2.1 Conceptual Framework

A conceptual framework is a research tool intended to assist a researcher in developing awareness and understanding of the situation under scrutiny and to communicate this. It assists a researcher to organize his thinking and complete an investigation successfully (Kombo and Tromp, 2006). In order to meet the objective of the research, a conceptual framework was developed based on the idea of Bono (2013) and Eliezar (2017). This framework would enable to explore influencing factors for grade 3 students' performance.

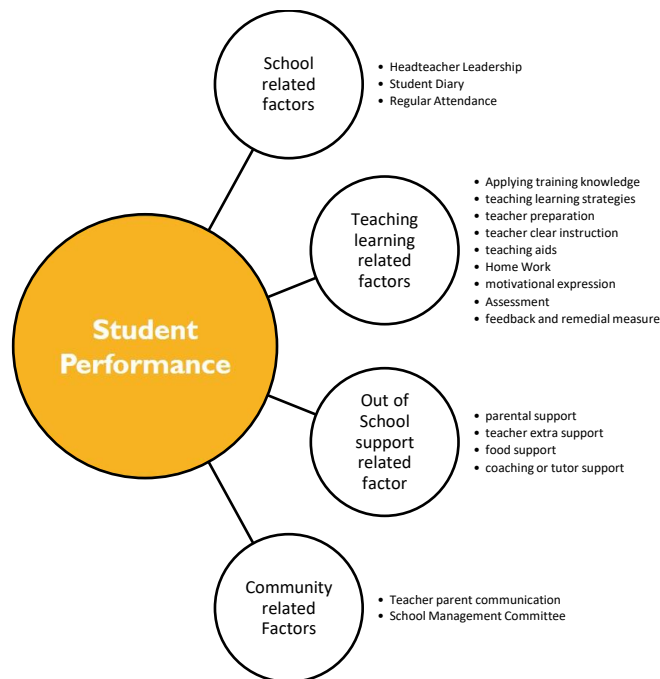


Figure 2.1 displays the influential factors for students' performance in literacy and numeracy skills.

Many research articles and studies have identified that many factors influence academic performance especially for numeracy and literacy skills. This study aims to explore these various factors in order to determine the main contributors to students' performance. These factors contribute to either high or low student performance. In 2019, Abu Saa, Al-Emran and Shaalan determined that school administration, teaching-learning activities, teacher support, guardian awareness, guardian support, food support, private coaching or tutor, assessment system, teaching aids, and motivation are the key influential factors for students performance especially for numeracy and literacy skills. Another research by Namoun and Alshantiti in 2020 acknowledged several influential factors for student's better performance, including headteacher leadership, teacher training, socioeconomic status, home environment, teacher quality, school climate and teacher preparation.

In this study, Headteacher leadership ((Dimopoulos, 2020), student diary (Ghannadi et al. 2017), student regular attendance (Gottfried, 2010), applying teacher training (Ashanqiti, 2020), teacher preparation (Kufner, 2007), motivational expression (Shaaan, 2019), teaching aids and teacher clear instruction (Namoun & Alshanqiti, 2020), home work (patell, 2006) , teaching learning strategies (Tomlinson, 2000), feedback and remedial measure (Hattie & Timperley, 2007), Parental Support (Chang, 2004), teacher extra support (Uzunovic et al, 2017), food support (Schmitt, 2010), coaching or tutor support (Guryan et al, 2012) have been taken as the factors influencing student performance.

3. Methodology

This chapter presents the methodology of the study, which includes study design and approach, sample size and sampling, and Data Collection, Coding and Data Presentation.

3.1 Study Design and Approach

To determine influencing factors in students' performance, the study conducted Achievement Tests as the baseline for students' learning status. At the same time, achievement tests were developed following the class-wise attainable competencies.

This study employed both quantitative and qualitative techniques to gather the necessary data and information.

The quantitative methods were adopted to gather the data on Grade Three level competencies of the students in Bangla and Mathematics subjects in addition to collecting the background data of the students. This study collected data only from grade three to conveniently use the instruments and feasibility. On the other hand, qualitative methods were necessary to gather the views of HTs, ATs and lesson observations on identifying influencing factors in students' performance.

The study deployed four kinds of instruments, and data were collected from students, classrooms, assistant teachers and headteachers. While administering the achievement test in January 2023, the study team applied the test to students of grade four because these students had completed grade three just a few days ago. In addition, while collecting qualitative data, the study team interviewed the assistant teachers who taught Bangla and Mathematics in grade three in 2022; for observation, the same teacher took the class in grade three. Considering the administrative division of Bangladesh, this study adopted the following techniques:

- Achievement Tests for Students (for assessing the numeracy and literacy-wise performance of the students in terms of Grade level competencies),
- Interview schedule with Headteacher,
- Interview schedule with Assistant Teacher (Bangla and Mathematics), and
- Lesson Observation (Bangla and Mathematics).

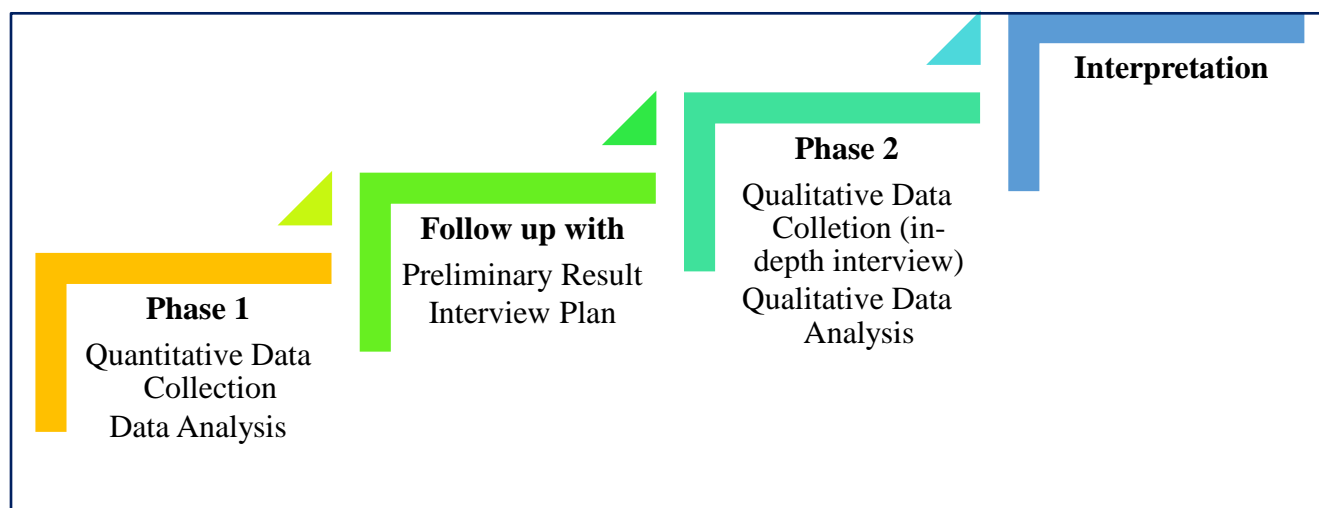


Figure 3.1 Design of the study

Therefore, this study demanded integrating both quantitative and qualitative approaches. An ‘explanatory sequential design’ of the mixed method research approach was employed throughout the study.

Based on the result of the Achievement, interviews with HT, AT and Guardians and Lesson Observation to determine the factors behind the students’ performance.

3.2 Sample Size and Sampling

To administer the achievement test, a representative sample size was determined. As the population size is large (greater than 20,000), the following formula was used to determine the representative sample size:

$$\text{Sample size} = \frac{Z^2 \times P(1-P)}{e^2} \dots\dots\dots (\text{Equation 1})$$

Z=1.96 (for 95% confidence level)

e=0.05

P=0.5

By solving the above equation, the sample size was found to be 384. So, the required sample size was 384 and the study targeted 800 students. After collecting data, a total of 765 students (395 from GPS and 370 from KG) were found to administer the test.

- The team selected ten districts following multi-stage purposive sampling. Among them, eight districts from eight administrative divisional headquarters of Bangladesh and two districts from Dhaka and Chattogram; Shariyatpur from Dhaka and Rangamati from Chattogram. The team purposively considered city/municipality (district town) and

Upazilla (upazila headquarter) in school selection. Districts and upazilla were selected purposively.

- The team selected also selected government primary schools (PGS) and Kindergarten Schools (KG) purposively.
- The study team collected data from 20 GPS and 20 Kindergarten schools from 10 district towns and 10 upazila headquarters from all eight divisions of Bangladesh.
- GPS and KG schools were selected following random sampling techniques. Girls and boys students also were selected considering random sampling techniques.
- Head of all selected schools, two teachers from each school, 10 boys and 10 girls from each GPS and kindergarten, 2 lesson observations for each school.
- The team collected qualitative data from the best two mean-score schools and the lowest two mean-score schools in the achievement test.
- The team interviewed 1 headteacher from each GPS and KG school.
- The team interviewed 2 assistant teachers for both Bangla and Mathematics for each GPS and KG school. Bangla and Mathematics teachers who taught in Grade Three in the previous year were selected and the same teacher's lesson was observed.



Table 3.1: Sampling Procedure at a Glance (for Quan. Data)

Division	District	Upazilla	GPS	KG	Students
8	10	20	20	20	20x4=800

Table 3.2: Sampling Procedure at a Glance (for Qual. Data)

School	HT	AT	LO
GPS	2	2x2=4	2x2=4
KG	2	2x2=4	2x2=4

3.3 Data Collection, Coding and Data Presentation

- Quantitative data were collected using achievement tests.
- Qualitative data were collected from HTs and ATs through Open-ended questions in the interviews. The team coded the collected data for descriptive analysis.
- GPS schools were coded like GS1 to GS20 and KG schools like KG1 to KG20.
- GPS Headteachers, Assistant Teacher Bangla, Assistant Teacher Mathematics and Lesson Observations from two best mean-scorer were coded like GHT1 to GHT2, GBT1 to GBT2, GM1 to GMT2, GLOB1 to GLOB2 and GLOM1 to GLOM2.
- GPS Headteachers, Assistant Teacher Bangla, Assistant Teacher Mathematics and Lesson Observations from two lowest mean-scorer were coded like GHT3 to GHT4, GBT3 to GBT4, GMT3 to GMT4, GLOB3 to GLOB4 and GLOM3 to GLOM4.
- KG school Headteachers, Assistant Teacher Bangla, Assistant Teacher Mathematics and Lesson Observations from two best mean-scorer were coded like KHT1 to KHT2, KAT1 to KAT2, KLOB1 to KLOB2 and KLOM1 to KLOM2.
- KG school Headteachers, Assistant Teacher Bangla, Assistant Teacher Mathematics and Lesson Observations from two lowest mean-scorer were coded like KHT3 to KHT4, KAT3 to KAT4, KLOB3 to KLOB4 and KLOM3 to KLOM4.
- Qualitative data of GPS and KG schools was presented individually but discussions and findings were combined for determining factors.

4. Data Presentation

The data is reported, analyzed and presented using mean, tables, pie charts and bar graphs.

4.1 Quantitative Data Presentation for Government Primary Schools

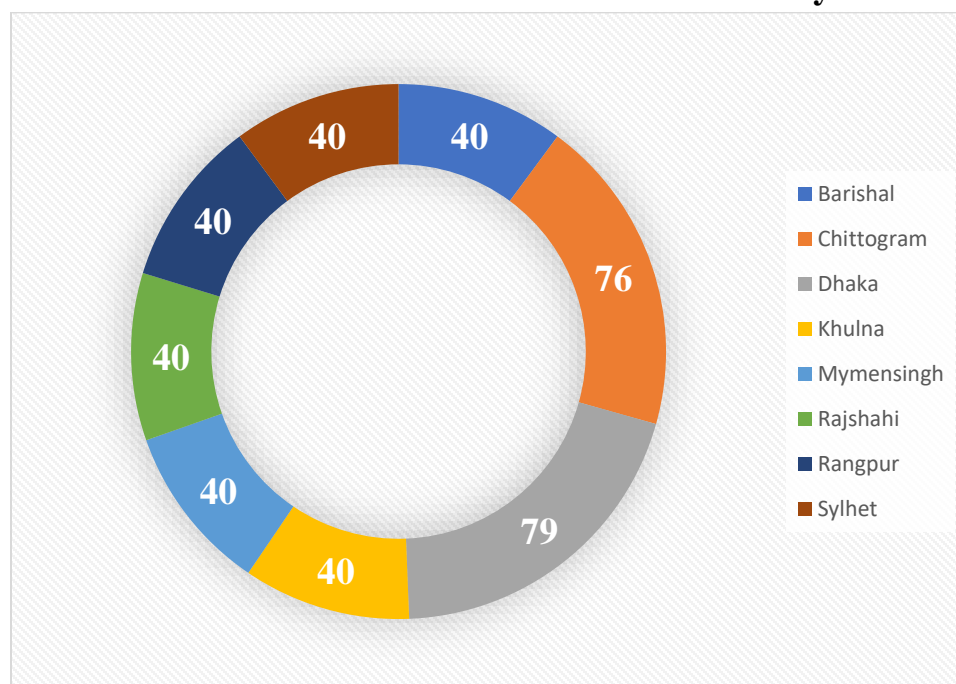


Figure 4.1.1: Division-wise students' participation in the achievement test GPS

The graph above illustrates that a total of 395 students participated in the achievement test. Out of them, 79 were from Dhaka division and 76 were from Chottogram division. Additionally, there were 40 students each from Barishal, Khulna, Mymensingh, Rajshahi, Rangpur and Sylhet divisions who also took part in the test.

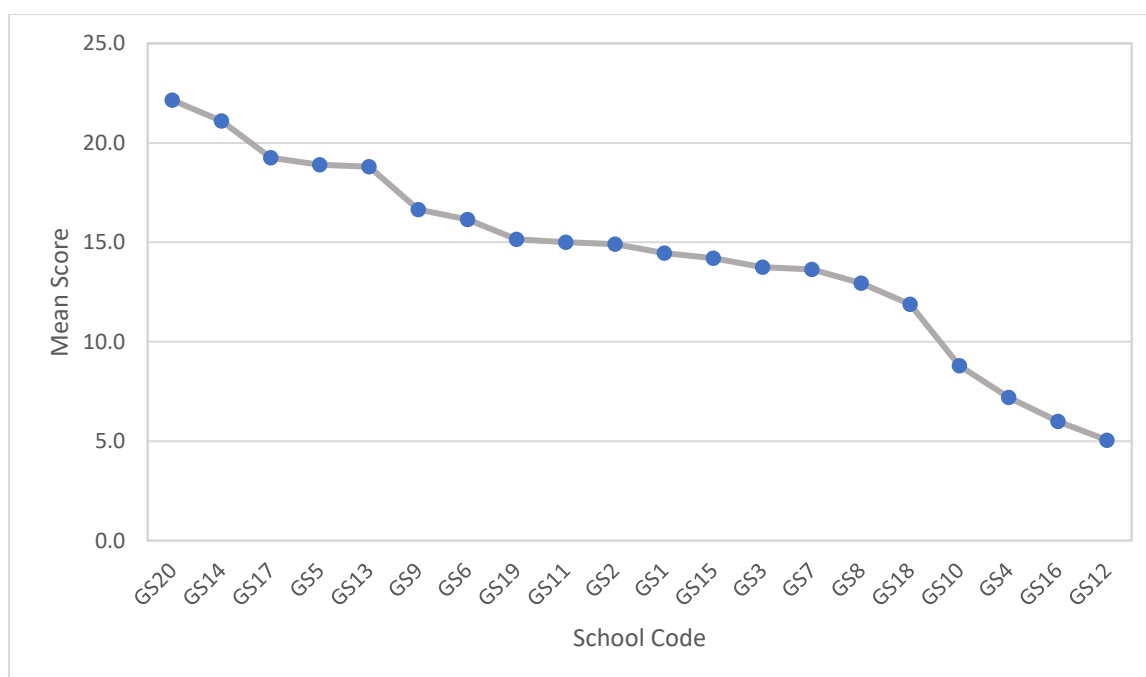


Figure 4.1.2: Mean score for literacy skills (N-395) for GPS

The above graph shows the school-wise students' performance in achievement tests for literacy skills of government primary schools. GS20 (22.2) got the highest mean score and GS12 (5.1) got the lowest mean score. GS14 (21.1) achieved the second-highest mean score and GS16 (7.2) was the second-lowest. The average mean score in literacy skills is 14.3. Therefore, it can be determined that students in half of the schools scored below average on literacy tests.

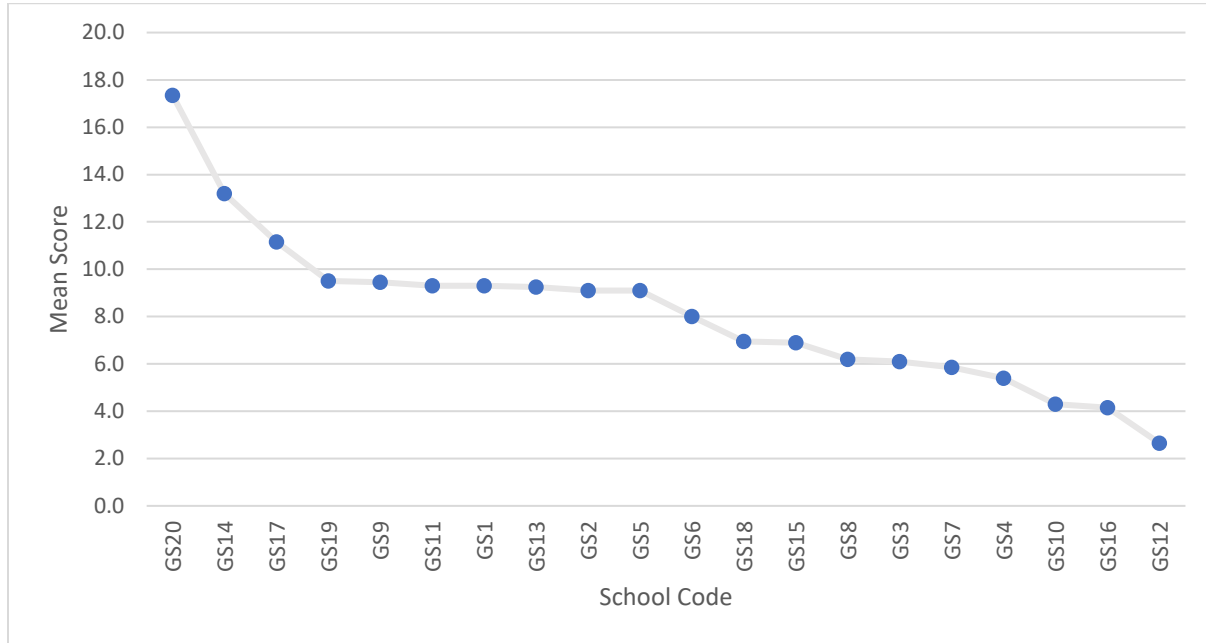


Figure 4.1.3: Mean score for numeracy skills (N-395) for GPS

The above graph describes the school-wise students' performance in achievement tests for numeracy skills in government primary schools. GS20 (17.4) achieved the highest mean score, and GS12 (2.7) had the lowest mean score. The second-highest mean score got is GS14 (13.2), and the second-lowest is GS16 (4.2). The average mean score in literacy skills is 14.3. Surprisingly, the same GP schools achieved the highest mean score in both literacy and numeracy skills. Therefore, it can be determined that students in half of the schools scored below average in numeracy skills.

Division	N	Literacy skills	SD	Numeracy skills	SD
Barishal	40	17.0	4.2	13.4	5.2
Chittogram	76	16.9	6.2	7.3	3.1
Dhaka	79	11.7	6.2	7.5	3.9
Khulna	40	18.0	2.8	11.2	4.0
Mymensingh	40	12.5	6.4	6.9	4.9
Rajshahi	40	18.0	6.0	9.1	4.7

Rangpur	40	10.8	5.8	5.5	3.4
Sylhet	40	10.0	6.6	6.0	4.6

Table 4.1.1: Division-wise mean of literacy and numeracy with SD for GPS

The table describes the division-wise comparative mean of literacy and numeracy with SD. It was found that students of Sylhet, Rangpur, and Dhaka divisions got comparatively lower average scores among the eight divisions, whereas Rajshahi and Khulna divisions showed the highest mean of 18.0 in literacy. Moreover, SD displayed variations among the divisions. For instance, Khulna division had the lowest SD of 2.0, indicating the least variations among the students of the respective division. The higher variations were found in Sylhet, Mymensingh, Dhaka and Chattogram divisions, where SDs were 6.6, 6.4, 6.2, and 6.2, respectively. It was also found that the students of Barishal (13.4) and Khulna (11.2) achieved the highest average in numeracy. SD variations are nearly from 3 to 5.

Criteria		Literacy skills	SD	Numeracy skills	SD
Boys (N=185)	Upazila Headquarter (N= 93)	11.8	7.4	8.3	5.6
	District Headquarters (N=92)	16.1	5.6	9.1	3.8
	Total	13.9	6.9	8.7	4.8
Girls (N=210)	Upazila Headquarter (N=102)	13.1	7.0	7.3	5.1
	District Headquarters (N= 108)	16.2	4.7	8.2	4.1
	Total	14.7	6.1	7.7	4.6

Table 4.1.2: Sex and location-wise mean of literacy and numeracy skills with SD for GPS

It is revealed from the data that for boys in Upazila Headquarters (UH), the mean score in literacy is 11.8 with a standard deviation of 7.4, and the mean score in numeracy is 8.3 with a standard deviation of 5.6. For boys in District Headquarters (DH), the mean score in literacy is 16.1 with a standard deviation of 5.6, and the mean score in numeracy is 9.1 with a standard deviation of 3.8. The overall mean score in literacy for boys is 13.9 with a standard deviation of 6.9, and the overall mean score in numeracy is 8.7 with a standard deviation of 4.8.

For girls in UH, the mean score in literacy is 13.1 with a standard deviation of 7.0, and the mean score in numeracy is 7.3 with a standard deviation of 5.1. For girls in DH, the mean score in literacy is 16.2 with a standard deviation of 4.7, and the mean score in numeracy is 8.2 with a standard deviation of 4.1. The overall mean score in literacy for girls is 14.7 with a standard deviation of 6.1, and the overall mean score in numeracy is 7.7 with a standard deviation of 4.6.

Therefore, it can be concluded that girls tend to perform better than boys in literacy, but boys tend to perform better than girls in numeracy. Furthermore, students in district headquarters tend to perform better than those in upazila headquarters, regardless of their gender. Finally, the standard deviations indicate that the performance variability is higher for literacy compared to numeracy.

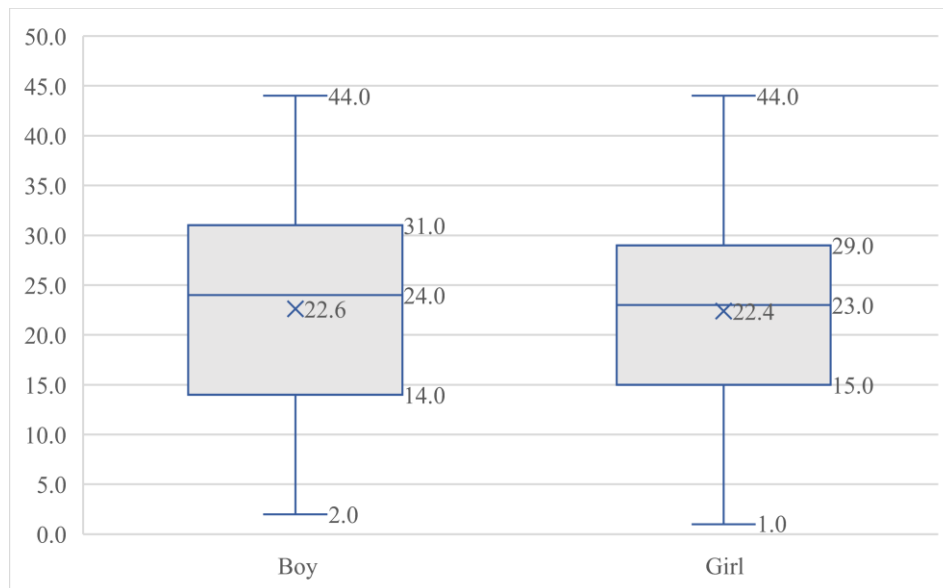


Figure 4.1.4: The boxplot for the total achievement score on both numeracy and literacy skills of boys and girls for GPS

The boxplot on the total achievement score of boys and girls reveals that 50% score of boys lies between 14.0 to 31.0 and the median score is 24, and 50% score lies between 15.0 to 29.0 and the median score is 23.0 for girls. It also shows that boys and girls got nearly the same result regarding the mean scores.

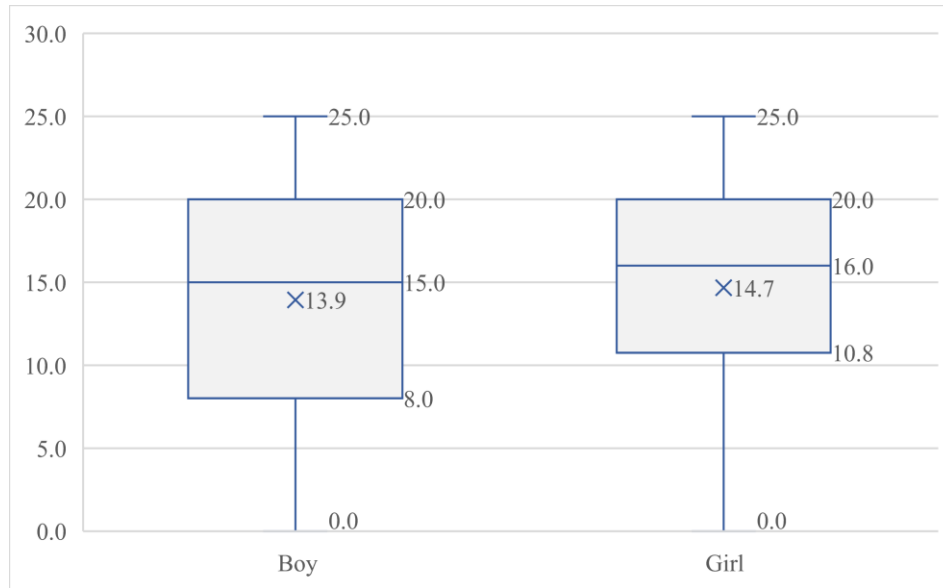


Figure 4.1.5: The boxplot for the total achievement score on literacy skills of boys and girls for GPS

The above boxplot for total achievement score of literacy according to sex reveals that the score of boys in the inter-quartile range is from 8.0 to 20.0 and the median score is 15.0, and for the girls, it is from 10.8 to 20.0 and the median is 16.0. It shows that the girl's score is prone to do better.

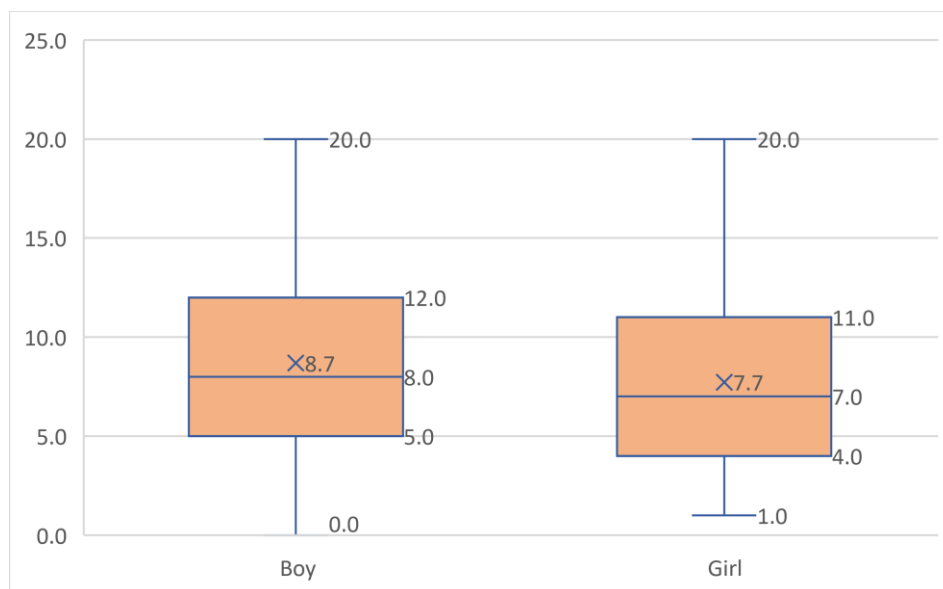


Figure 4.1.6: The boxplot for the total achievement score on numeracy skills of boys and girls for GPS

The above boxplot illustrates the achievement score in numeracy for both boys and girls. The boys got comparatively good scores; the middle 50% scores range from 5.0 to 12.0 and the median is 8.0, whereas the middle 50% scores range for girls from 4.0 to 11.0 and the median is 7.0. The girl’s achievement scores are slightly lower and the mean score is 7.7.

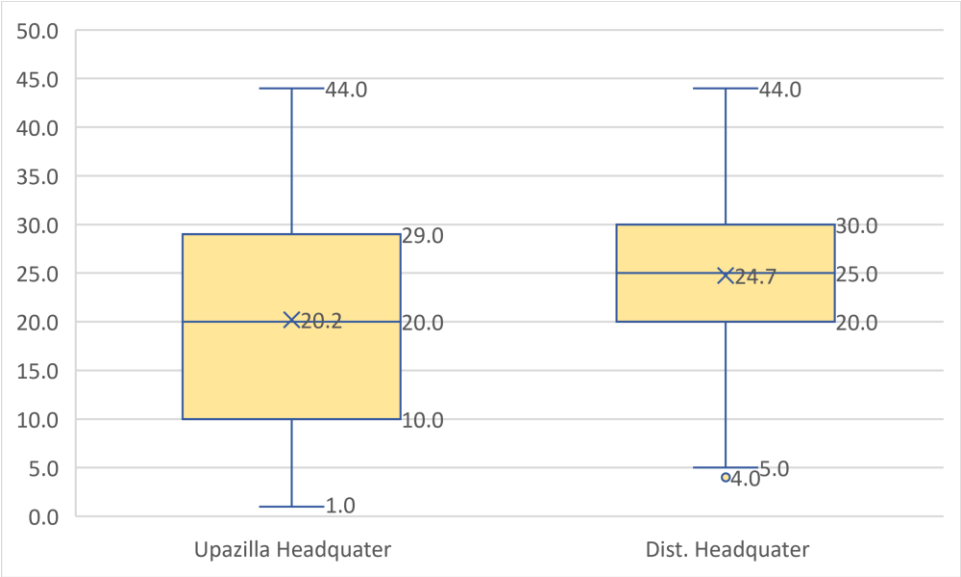


Figure 4.1.7: The boxplot for the total achievement score on literacy and numeracy skills according to location

According to geo-location, the above table shows that the variation of district headquarters students in the middle 50% is between 20.0 to 30.0, whereas the upazila headquarters is from 10.0 to 30.0. In addition, the lowest score for district headquarters is 4.0; on the other hand, 1.0 is for upazila headquarters. Overall, the mean score of DH is comparatively higher than that of UH students.

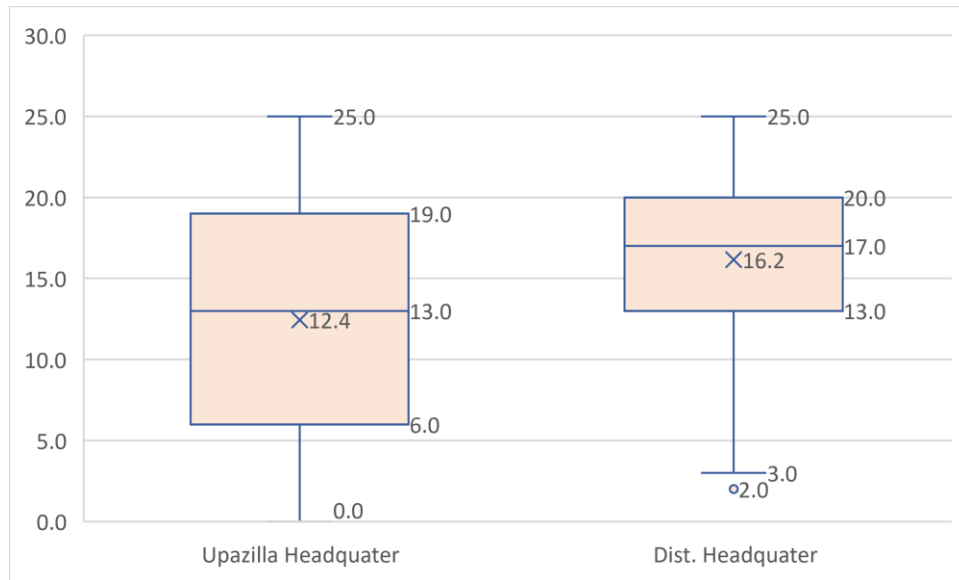


Figure 4.8: The boxplot for the total achievement score on literacy skills according to location

The above boxplot illustrates the score of literacy skills that the variation of district headquarters students in the inter-quartile range is between 13.0 to 20.0, whereas the upazila headquarters is from 6.0 to 19.0. In addition, the lowest score for district headquarters is 2.0; conversely, 0.0 is for upazila headquarters. Overall, the mean score of district headquarters is comparatively higher than upazila headquarters students.

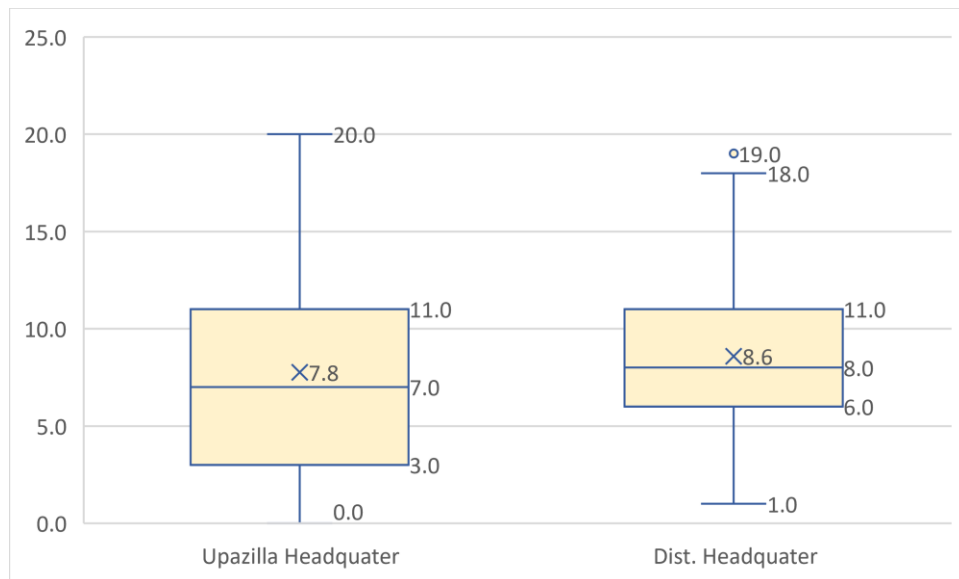


Figure 4.1.8: The boxplot for the total achievement score on numeracy skills according to location

The boxplot reveals the score of numeracy skills that the variation of district headquarters students in the middle 50% range is between 6.0 to 11.0, whereas the upazila headquarters is from 3.0 to

11.0. In addition, the lowest score for district headquarters is 1.0; conversely, 0.0 is for upazila headquarters. Overall, the mean score of the students is nearly the same.

School Code	Numeracy Mean Score (N-395)	School Code	Literacy Mean Score (N-395)
GS20	17.4	GS20	22.2
GS14	13.2	GS14	21.1
GS16	4.2	GS16	7.2
GS12	2.7	GS12	5.1
Average	8.2	Average	14.3

Table 4.1.3: Highest and lowest score school in achievement tests

GS20 has the highest mean score in both numeracy (17.4) and literacy skills (22.2), indicating that the students from this school performed the best in these areas and GS12 with the lowest mean score of 2.7. Based on this data, it appears that there is a significant variation in numeracy skills between the highest and lowest-scorer schools, with GS20 having more than five times higher mean scores than GS12. Similarly, the same situation is with literacy skills. GS20 is more than four times the lowest scorer school.

4.2 Quantitative Data Presentation for Kindergarten Schools

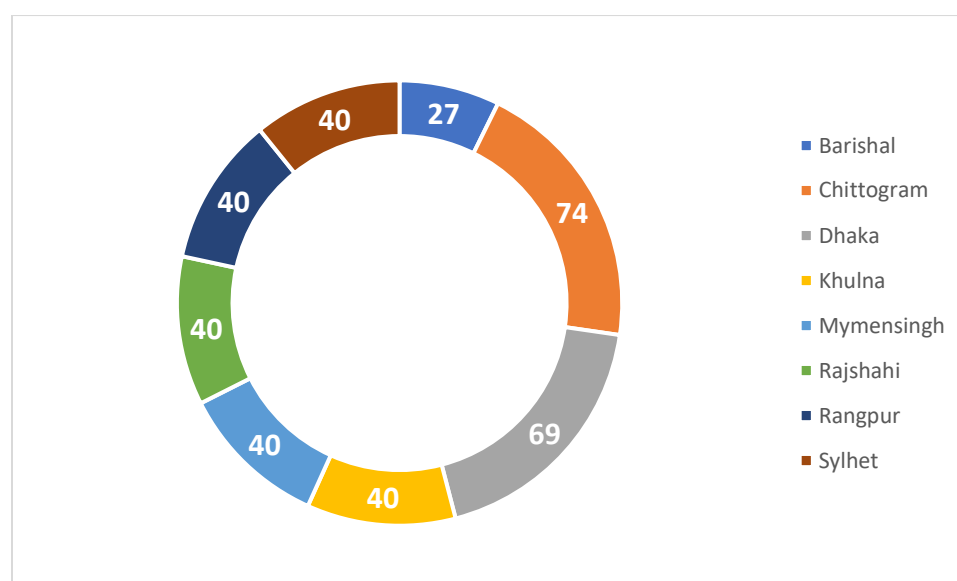


Figure 4.2.1: Division-wise students' participation in the achievement test KG

The graph above illustrates that a total of 370 students of KGs participated in the achievement test. Out of them, 74 were from Chottogram division 69 were from Dhaka division and 27 were from Barishal division. Additionally, there were 40 students each from Khulna, Mymensingh, Rajshahi, Rangpur and Sylhet divisions who also took part in the test.

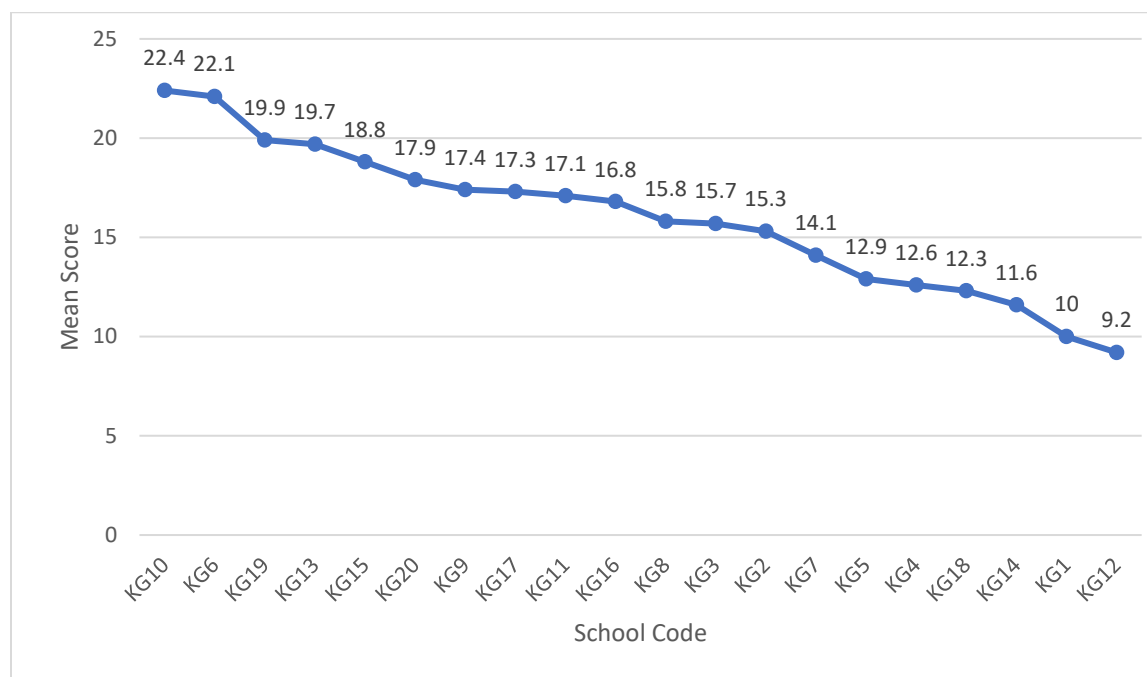


Figure 4.2.2: Mean score for literacy skills (N-395) for KG

The above graph shows the school-wise students' performance in achievement tests for literacy skills of KG schools. KG10 (22.4) got the highest mean score and KG12 (9.2) got the lowest mean score. KG6 (22.1) achieved the second-highest mean score and KG1 (10) was the second-lowest. The average mean score in literacy skills is 16.0. Therefore, it can be determined that students in half of the schools scored below average on literacy tests.

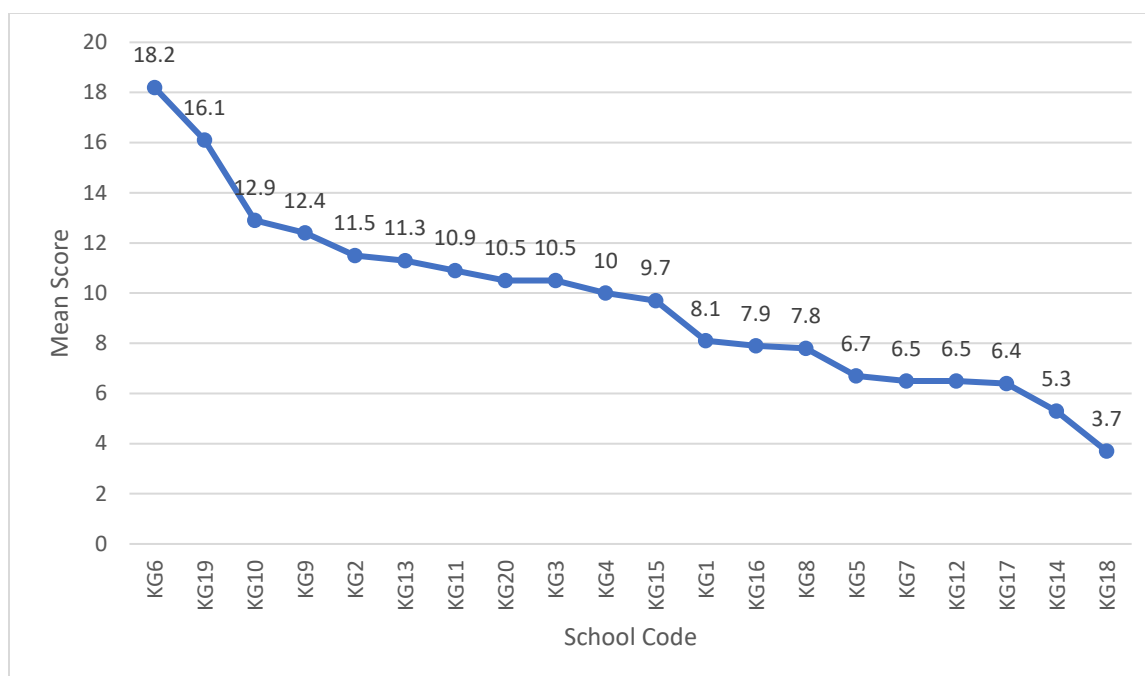


Figure 4.2.3: Mean score for numeracy skills (N-395) for GPS

The above graph describes the school-wise students' performance in achievement tests for numeracy skills in KG schools. KG6 (18.2) achieved the highest mean score, and KG18 (3.7) had the lowest mean score. The second-highest mean score got KG19 (16.1), and the second-lowest is KG14 (5.3). The average mean score in Mathematics is 9.5. Therefore, it can be determined that students in half of the KG schools scored below average in numeracy skills.

Division	N	Literacy Skills	SD	Numeracy Skills	SD
Barishal	27	18.4	4.3	11.9	4.4
Chittogram	74	16.3	5.9	10.0	5.7
Dhaka	69	13.9	5.7	10.3	4.3
Khulna	40	15.7	6.7	8.3	5.2
Mymensingh	40	19.9	3.7	12.7	3.1
Rajshahi	40	14.8	6.4	5.0	2.8
Rangpur	40	17.8	5.0	8.8	3.9

Sylhet	40	13.1	6.8	8.7	5.1
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Table 4.2.1: Division-wise mean of literacy and numeracy with SD for KG

The table describes the division-wise comparative mean of Bangla and Mathematics with SD. It is found that students of Sylhet, Dhaka and Rangpur divisions got comparatively lower average scores among the eight divisions whereas Mymensingh and Barishal divisions showed the highest mean of more than 18.0 in Bangla subject. Moreover, SD displayed variations among the divisions. For instance, Mymensingh division had the lowest SD of 3.7 which indicates the least variations among the students of the respective division. The higher variations were found in Sylhet, Khulna and Rajshahi divisions where SDs were 6.8, 6.7 and 6.4 respectively.

It is also found that students of Rajshahi, Khulna, Sylhet and Rangpur divisions got comparatively lower average scores among the eight divisions whereas Mymensingh divisions showed the highest mean of 12.7 in Bangla. Moreover, SD displayed variations among the divisions. For instance, Rajshahi division had the lowest SD of 2.8 which indicates the least variations among the students of the respective division. The higher variations were found in Sylhet, Khulna and Chottogram divisions where SDs were 5.1, 5.2 and 5.7 respectively.

Criteria		Literacy Skills	SD	Numeracy Skills	SD
Boys (N=194)	Upazila Headquarters (N= 103)	14.9	7.0	9.7	5.9
	District Headquarters (N=91)	15.1	6.0	9.1	4.5
	Total	15.0	6.5	9.4	5.3
Girls (N=176)	Upazila Headquarter (N=94)	16.3	5.7	9.2	5.0
	District Headquarters (N= 82)	17.9	4.4	10.0	3.8
	Total	17.1	5.2	9.5	4.5

Table 4.2.2: Sex and location-wise mean of literacy and numeracy skills with SD for K

It is revealed from the data that for boys in Upazila Headquarters (UH), the mean score in literacy is 14.9 with a standard deviation of 7.0, and the mean score in numeracy is 9.7 with a standard deviation of 5.9. For boys in District Headquarters (DH), the mean score in literacy is 15.1 with a

standard deviation of 6.0, and the mean score in numeracy is 9.1 with a standard deviation of 4.5. The overall mean score in Bangla for boys is 15.0 with a standard deviation of 6.5, and the overall mean score in numeracy is 9.4 with a standard deviation of 5.3.

For girls in UH, the mean score in literacy is 16.3 with a standard deviation of 5.7, and the mean score in numeracy is 9.2 with a standard deviation of 5.0. For girls in DH, the mean score in literacy is 17.9 with a standard deviation of 5.7, and the mean score in numeracy is 10.0 with a standard deviation of 3.8. The overall mean score in literacy for girls is 17.1 with a standard deviation of 5.2, and the overall mean score in numeracy is 9.5 with a standard deviation of 4.5.

Therefore, it can be concluded that girls tend to perform better than boys in literacy but boys and girls both equally performed in numeracy. Furthermore, students in district headquarters tend to perform better than those in upazila headquarters regardless of their gender. Finally, the standard deviations indicate that the performance variability is higher for literacy compared to numeracy.

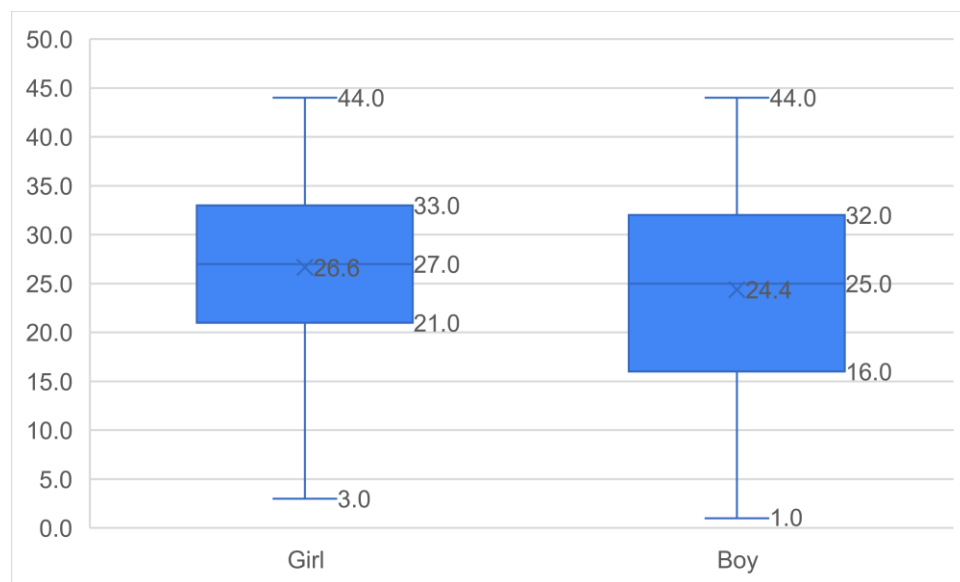


Figure 4.2.4: The boxplot for the total achievement score on both numeracy and literacy skills of boys and girls for KG

The boxplot on the total achievement score of boys and girls reveals that 50% score of boys lies between 33.0 to 21.0 and the median score is 27, and 50% score lies between 32.0 to 16.0 and the median score is 25.0 for girls. It also shows that mean score of girls (26.6) is higher than mean score of boys (24.4).

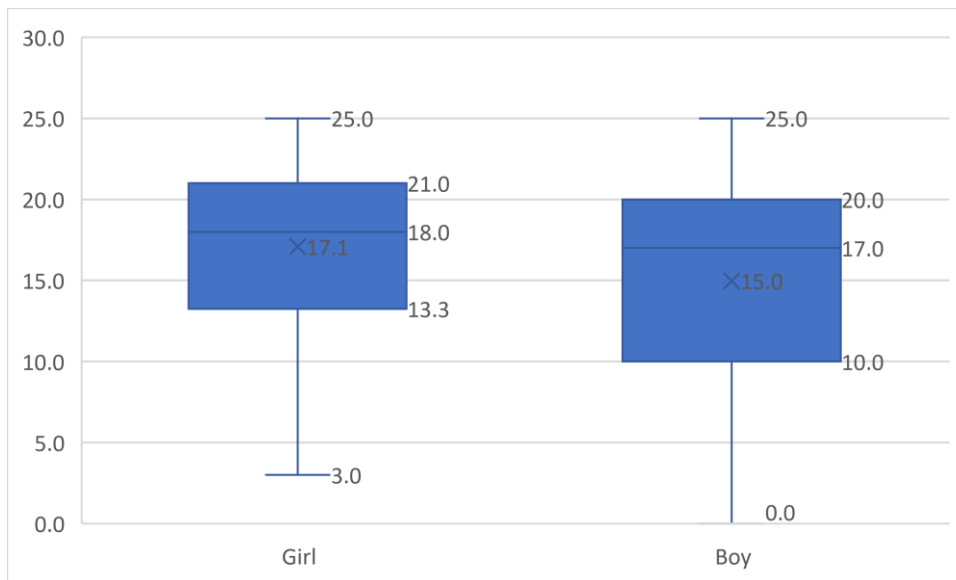


Figure 4.2.5: The boxplot for the total achievement score on literacy skills of boys and girls for KG

The above boxplot for total achievement score of literacy according to sex reveals that the score of boys in the inter-quartile range is from 13.3 to 21.0 and the median score is 18.0, and for the girls, it is from 10.0 to 20.0 and the median is 17.0. It shows that the boys' and girl's score is near to same.

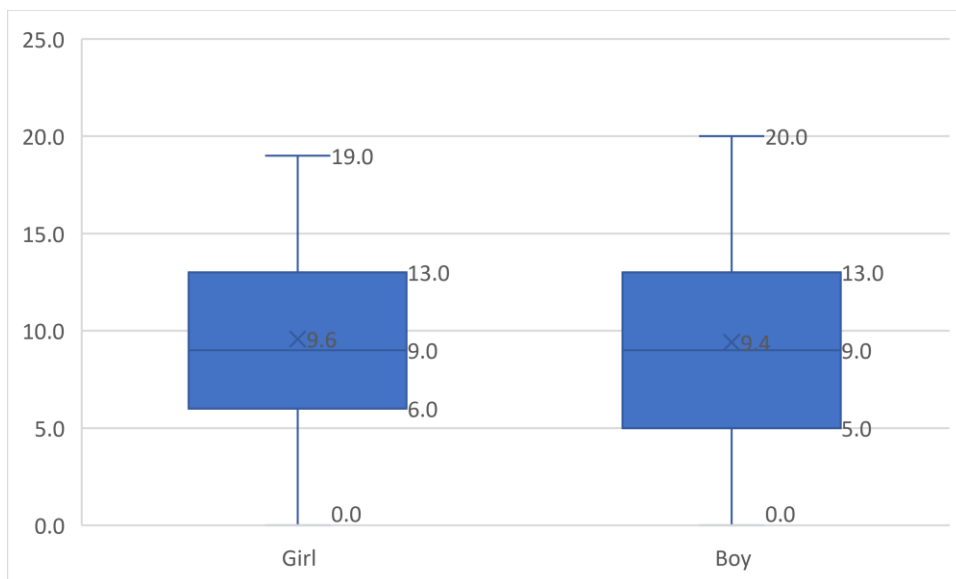


Figure 4.2.6: The boxplot for the total achievement score on numeracy skills of boys and girls for KG

The above boxplot illustrates the achievement score of KG schools in numeracy for both boys and girls. The middle 50% scores of boys range from 6.0 to 13.0 and the median is 9.0, whereas the

middle 50% scores range for girls from 5.0 to 13.0 and the median is 9.0. The boys' and girls' scores are near to same.

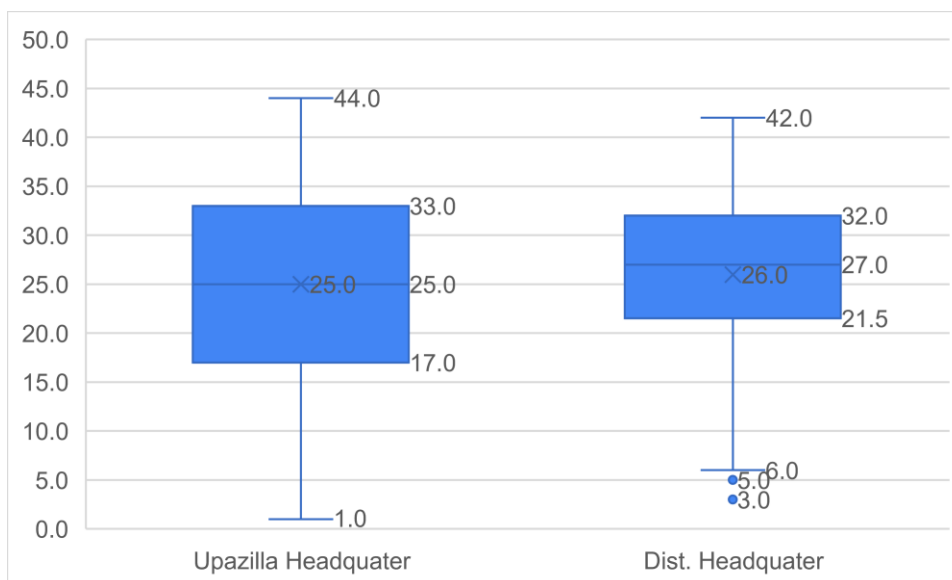


Figure 4.2.7: The boxplot for the total achievement score on literacy and numeracy skills according to location

According to geo-location, the above table shows that the variation of district headquarters students in the middle 50% is between 21.5 to 32.0, whereas the upazila headquarters it is from 17.0 to 33.0. Overall, the mean score of DH is comparatively higher than that of UH students.

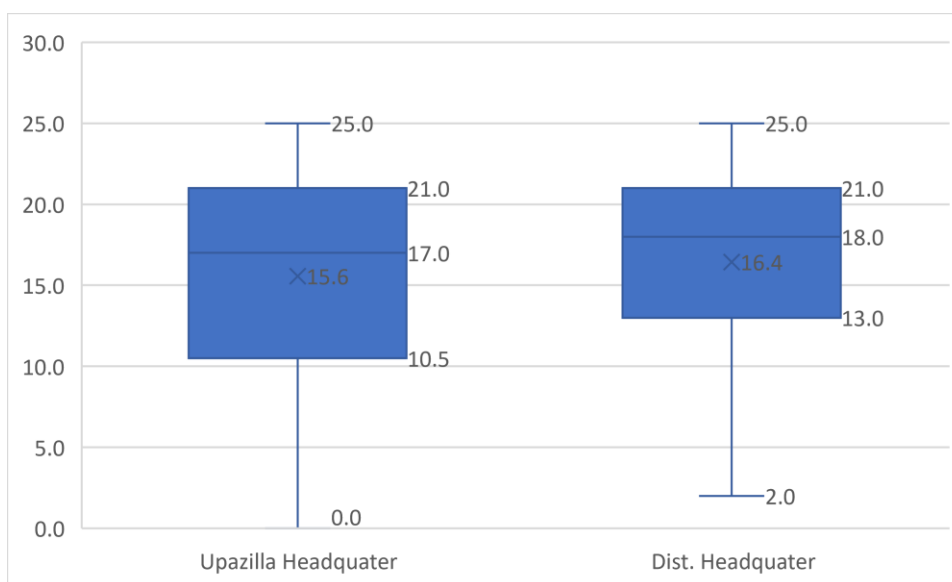


Figure 4.2.8: The boxplot for the total achievement score on literacy skills according to location

The above boxplot illustrates the score of literacy skills that the variation of district headquarters students in the inter-quartile range is between 13.0 to 21.0, whereas the upazila headquarters is from 10.5 to 21.0. In addition, the lowest score for district headquarters is 2.0; conversely, 0.0 is for upazila headquarters. Overall, the mean score of district headquarters is comparatively higher than upazila headquarters students.

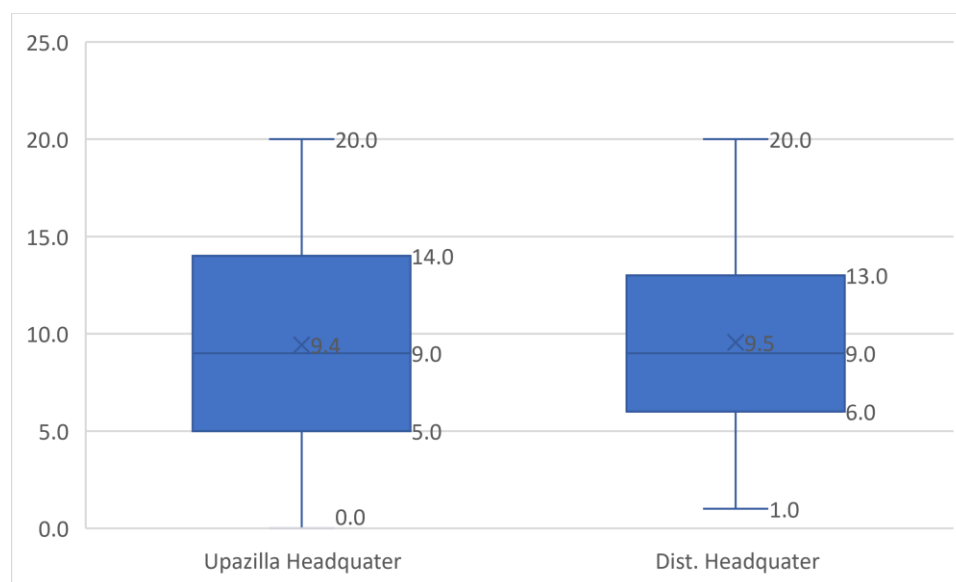


Figure 4.2.9: The boxplot for the total achievement score on numeracy skills according to location

The boxplot reveals the score of numeracy skills that the variation of district headquarters students in the middle 50% range is between 6.0 to 13.0, whereas the upazila headquarters is from 5.0 to 14.0. In addition, the lowest score for district headquarters is 1.0; conversely, 0.0 is for upazila headquarters. Overall, the mean score of the students is nearly the same.

School Code	Literacy Mean Score (N-370)	School Code	Numeracy Mean Score (N-370)
KG6	22.1	KG6	18.2
KG10	22.4	KG10	12.9
KG18	12.3	KG18	3.7
KG12	9.2	KG12	6.5

Average of Total	16.0	Average of Total	9.5
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Table 4.2.3: Highest and lowest score school in achievement tests

KG10 has the highest mean score in literacy (22.4) indicating that the students from this school performed the best in these areas and KG12 with the lowest mean score of 9.2. Based on this data, it appears that there is a significant variation in numeracy skills between the highest and lowest-scoring schools, with KG6 having more than five times higher mean scores than KG18. Similarly, the same situation is with literacy skills. KG10 is more than two times the higher scorer school than KG12.

4.3 Qualitative Data for Government Primary Schools

Influencing Factors on Students' Performance

The researchers conceptualized the factors accountable for the students' better performances from literature in the second phase of data gathering. They have identified four areas for influencing students' numeracy and literacy skills performance: school-related, teaching-learning-related, support-related factors and community related factors.

1. School-related Factors

1.1 Headteacher Leadership (HTL)

The researcher wanted to know whether Headteacher Leadership (HTL) had any effect or not in performing well in students' achievement scores. While interviewing HT, it was revealed that HTL was a key influencing factor for the students' academic performance. During the interview, GHT1, GHT2 and GHT3 said that they conducted sessions and supervised academic activities, provided feedback, ensured routine-wise lesson and teacher-student regular attendance, prepared and implemented school development plan, built relationships with parents and took the initiative for getting support from the parents and community. One of the HTs (GHT2) said, *"In my school, I visit every class in turns in a month, talk with parents, share necessary instructions about their children, and even I conduct English class in grade five."*

Similarly, interviewed assistant teacher (AT) noted that HTL influenced students' good performance. GTB4, GTM1, GTM3 and GTM4 mentioned that Headteacher conducts academic supervision, communicates with guardians, looks after the students, informs guardians about their children's weaknesses and recovery instructions, and also arranges extra classes for the weak students. An AT (GTM2) of high scorer school said, *"The headteacher instructs us in the regular staff meeting to ensure learning outcomes. In the absence of a teacher, he requests another teacher to conduct the session."* Another GBT1 of high scorer school stated, *"I think HTL is the central*

factor for academic performance. In our school, if there is any problem with the parents or with others, HT solves the issue.” During observation of the high scorer schools, the researcher found that HT (GS20) talked with the students and parents and sent necessary documents to the education office.

The researcher observed the low scorer schools (GS16, GS12) and found that HT had a few involvements with students, parents and teaching-learning activities. One of the HT (GS12) mentioned, *“He couldn’t supervise academic activities because of other activities. It may influence my student performance.”* A similar notion was from another AT. He (GMT3) said, *“I think HTL influences the overall performance of the students. Our HT is not serious about observing teaching-learning activities or taking remedial measures for the weak students.”*

1.2 Student Diary

The researchers wanted to know the importance and practices of using student diaries to the teachers and headteachers. In reply to this question, the headteachers and the subject teachers informed that they are aware of this matter, and they added that it is very useful to communicate with the guardians. In addition, they also disclosed that they do not use student diaries, but they write all the necessary information, including homework, on the Blackboard and the students write it down in their Exercise book (Note Khata). In this aspect, a comment from a subject teacher (GTB1) of high scorer school is applicable here, *“I do not use Student Diary to write information, but I write down all the necessary information on the blackboard and the learners copy it on their Exercise Book.”*

On the other hand, the headteachers and the subject teachers of the low scorer schools stated that they could not use it for some limitations like lack of students’ economic solvency, overloaded sessions, home visits and other official pressures. In this regard, a subject teacher (GTB4) mentioned, *“I don’t use student diary because it added an unnecessary extra khata; I use students’ regular exercise khata when I give them any task at home.”*

1.3 Student Regular Attendance

The researchers asked headteachers and assistant teachers whether students’ regular attendance had any influence or not in academic performance. All interviewed HTs and ATs unanimously mentioned that students’ regular attendance is an influential factor in academic achievement. They also said that regular attendance helps to learn continuity and ensures learning outcomes, but in government primary schools, students come from diverse backgrounds and for these reasons, some of the students remain absent regularly. An HT (GHT1) from a high scorer school said, *“Students’ irregular attendance breaks their learning continuity. So that irregular students in the school become backward students and can’t perform well”.*

While interviewing teachers of low scorer schools, they mentioned that most of the students remain absent due to involving family activities. Among the irregular students, some students are from broken families. We try to make them regular, we do home visits and talk with their guardians. As a result, irregular attendance hinders students' achievement. A teacher (GHT4) said, *"Some of my students in my class remain absent due to family affairs. When students are absent from class frequently, they miss out on lessons and opportunities for interactive learning."*

2. Teaching-Learning-related Factors

2.1 Applying Training Knowledge

The researchers aimed to explore the influence of applying training in the classroom. All interviewed headteachers stated that there are various types of training programs offered to government primary school teachers, including subject-based training in areas such as music, arts and crafts, physical education, ICT in education, inclusive education, leadership, academic supervision, competency-based test item development, SLIP, UPEP, and pre-primary education. They also mentioned that applying training knowledge is not possible due to several reasons, such as seating arrangement, inadequate practices, the pressure of overloaded classes, disconnection training techniques with real classroom situations etc.

High scorer schools mentioned that training knowledge influenced the students' academic performance. During interviews with teachers from high scorer schools, the researcher inquired about the impact of training knowledge on students' achievement scores. A Mathematics teacher (GMT1) shared his approach, stating, *"I try to apply my training knowledge while using teaching materials or teaching mathematics. I use different techniques for teaching geometry, place value, measurement etc. I try to give real examples with the mathematical problems."* Similarly, a Bangla teacher (GTB1) mentioned the benefits of receiving training in Bangla, stating,

"After receiving Bangla training, I am able to conduct more efficient Bangla classes. For example, I use presentation techniques such as letter or word cards when teaching new words. I try to ensure active student participation in my class. I apply to teach reading techniques in my class."

However, when the researchers interviewed teachers from low-scorer schools, they expressed difficulties in applying the training techniques due to factors such as back-to-back classes and additional workloads and receiving training in a single subject. A Mathematics teacher (GMT3) mentioned, *"I received only six days of subject-based training in mathematics and having difficulty recalling the training knowledge. But I have to conduct English and BGS class"*. A Bangla class

teacher (GTB3) from a low scorer school mentioned the challenges of applying the learned techniques due to extra classes and other workloads, seat arrangements, shortage of teachers.

2.2 Teaching-learning Strategies

In reply to Teaching-learning Strategies, it was revealed from all interviewed teachers that teaching-learning strategies are very vital influential factors for students' academic performance. The researcher aimed to investigate the consistent activities carried out by teachers in high-scorer schools. During interviews, a Bangla teacher (GBT2) shared his classroom practices, stating,

"I begin the class by exchanging greetings with students, inquiring about their well-being, and creating a conducive learning environment. I check students' prior knowledge and introduce teaching aids, write the lesson title on the board, and ask questions aligned with the learning outcomes. I encourage independent thinking, pair discussions, and group sharing. I also do the following activities in the class such as practicing pronunciation, writing on the board, reading passages multiple times with proper pronunciation, asking oral questions to clarify the content, and evaluating student progress through small questions and written evaluations, providing necessary feedback to improve skills."

Similarly, a Mathematics teacher (GMT2) mentioned his approach,

"I typically start the lesson by assessing students' prior knowledge and creating a favorable learning environment. To make the lesson engaging, I share relevant and motivating stories at the beginning and, when necessary, during the lesson. I explain mathematical concepts by incorporating real-life, semi-concrete, and abstract examples, utilizing attractive teaching aids. Throughout the lesson, I actively involve students at every stage, seeking their participation and assistance. I particularly prioritize the inclusion and engagement of weaker students, which significantly contributes to overall student performance."

It is also found from the lesson observations (GLOM1, GLOM2) of the high scorer schools teachers used problem charts and solved the problems on the board with the support of students. Teachers also helped the students to solve other problems. Finally, teachers let the students solve a problem individually and observe their solutions. Teachers also provided the necessary support to some slow learners and ensured their learning. Teachers in schools with good results emphasized the importance of checking student understanding after giving instructions. On the other hand, teachers in schools with poor results do not follow this practice.

On the other hand, the researcher found from the answers of the teachers (GMT3, GMT4) of low scorer schools about the teaching process of mathematics that they checked students' previous

knowledge, used teaching aids to present contents, solved the problems on the board and let the students solve the problems, checked their learning and gave them homework, etc. A teacher (GTM3) from a low scorer school said, “*I teach most of the math contents by following 3 steps of concrete, semi-concrete and abstract. Also, I solve the problems on the board and let the students solve such types of problems. Finally, I assigned them homework*”. It is also found from observation of the lessons of low scorer schools that a teacher (GLOM3) wrote an addition (253+526) on the board and helped one student to do the addition. The teacher also let the students do two addition from the textbook. Finally, the teacher checked their solution and ended the lesson. From the observation of a lesson in another slow learner school, it is found that the teacher solved a subtraction problem on (GLOM4) the board and discussed it with students. After that, the teacher asked the students to do two problems from the textbook and check their solutions. Finally, the teacher summarized and ended the lesson.

2.3 Teacher Preparation

The researcher wanted to know whether teacher preparation had any effect or not in performing better student achievement. When the researchers interviewed the ATs, it was revealed that preparation for conducting class is very important. All interviewed teachers from high scorer schools said that they took the necessary preparation to present the lesson. A teacher of Bangla (GBT1) from high scorer school emphasized the importance of prior teacher preparation, stating,

“I think the teacher's pre-lesson preparation is very important. Not just for Bangla, any lesson needs teacher preparation to deliver successfully. Creating a safe environment in the classroom, checking prior knowledge. Safe, non-threatening, and participatory learning is an important determinant of the good result for the student.”

Similarly, a teacher of Mathematics (GMT2) from high scorer school said, “*Lessons are better if I go to class with prior preparation. Student achievement is ensured. Lessons are enjoyable.*” When the researchers observed the class of a high scorer school, it was discovered that the preparation of a Bangla teacher (GTB1) was good. The teacher had a handwritten lesson plan. He uses teaching aids as the schools had huge collections of lesson-related teaching aids. Similarly, when the researcher observed the Mathematics class of a high scorer school, it was found that the preparation of a Math teacher (GTM2) was pretty good. He entered the classroom with lesson plans and teaching aids. At the beginning of the lesson, the teacher exchanged greetings and made personal inquiries with the students. He created a friendly environment by singing along with the students. In the end, he thanked everyone. He also used teaching aids.

In contrast, a Bangla teacher (GBT3) from low scorer school said, *“It becomes tough for taking preparation for each class. I have to take more than 5 classes almost every day. I have to take classes Bangla in classes one and two, English in classes three and four, and BGS in classes five.”* In observation of low scorer schools, it was found that teachers of low scorer schools did not take any preparation for conducting the classes. In observation of GLOB3, it was found that he read and asked the students to read with him at the same time. Some of the students read with him and some of them did not read with him.

“The teacher was reading and giving instructions to the learners to read after her, but a few students followed her and most of the learners were doing nothing. Basically, they cannot read from the text. In one stage, the teacher called only the advanced learners to break the joint letters, but all the slow learners were deprived of doing this; however, the teacher needed to give opportunities to the slow learners and provide the necessary support to perform that task.”

2.4 Teacher Instruction

Teachers’ instruction is a very important component of teaching-learning and students’ achievement as well. Teachers’ instruction should be clear, concise and concrete. So, the students can understand it properly. In this aspect, the researchers wanted to know the scenario of teachers’ instruction from the sample schools through lesson observation and interviewing the headteachers and the subject teachers. During the interview, a subject teacher (GTB1) also stated, *“I give clear instructions to the students in all of my lessons and take feedback from them. I repeat my instructions if needed so they can understand it clearly.”* Similarly, a Mathematics teacher (GMT1) highlighted the significance of providing clear instructions when assigning math problems. He said, *“I try to give clear instructions when presenting math problems, ensuring that students understand the given instructions. Moreover, I actively verify their comprehension of the instructions.”*

During lesson observation in high scorer government school, it was found that with a few exceptions, both Bangla and Mathematics teachers’ instruction was clear and quite understandable. After giving instructions, the teachers also asked the students whether their instruction was understandable to them or not. They repeated their instructions if needed and ensured they were clear to the students.

On the other hand, the low scorer schools’ teachers also could realize the importance of classroom instructions, but in most cases, after giving instructions, they did not take feedback to know whether the young learners could understand it or not. During the interview, a teacher (GTM3) argued, *“In today’s lesson, I gave instructions but forgot to check whether the learners could understand them or not”*.

2.5 Teaching Aids

Teaching is a very important component in successful teaching-learning. By using teaching aids, lessons can be presented joyfully and the learners can easily understand the lesson. It also saves time and labour for the teachers. Considering this issue, the researcher desired to know how much the teaching aids influenced students' numeracy and literacy skills in the sample schools.

It is revealed from lesson observation that high scorer government school teachers were aware about the importance of using teaching aids, and it was also important to note that they used lesson related teaching aids like colourful pictures, word cards, Joint-letter cards for Bangla and marbles, mathematical problem related charts, colourful number-charts, bandils of colourful sticks etc for Mathematics.

When the researcher asked the teachers of high scorer schools about what kinds of teaching aids they use in teaching numeracy skills, it was found from their (GTM¹, GMT²) answers that they use different kinds of concrete and semi-concrete teaching aids considering contents. They also mentioned that teaching aids are very important for making the mathematical concept easily understandable for the students. A teacher said, *"I use different kinds of concrete objects like sticks, seeds, leaves, marble, pieces of paper, etc. and semi-concrete objects like pictures, and charts considering the content of mathematics."*

On the other hand, the low scorer school teachers also know the importance of using teaching aids in lessons, but they are lacking of practicing it in their lessons, and they are also lacking of sufficient skills of using teaching aids, which is disclosed in the comment of a Bangla lesson observer (GLOB3), *"The teacher did not use any teaching aids other than the chalkboard. At the last portion of the lesson, the teacher used word card, which I could not find out any logic"*. Similarly, a Mathematics lesson observer (GLOM3), explored, *"The teacher did not use any teaching aids other than the chalkboard"*.

When the researcher asked the teachers of low scorer schools about what kinds of teaching aids they use in mathematics, It was found from their (GTM3, GMT4) answers that they used concrete aids like sticks, leaves, seeds and seeds and semi-concrete aids like pictures, charts. A teacher (GMT4) of low scorer school said, *"I use sticks, seeds, leaves and pictures from textbooks, etc. to teach mathematics. Mainly I use mathematics textbook"*.

2.6 Home Work

The researcher wanted to investigate the potential impact of homework on students' academic performance as measured by achievement scores. While interviewing AT, it was revealed that

homework plays a significant influence on students' academic achievement. During the interview, GBT1, GMT1 said that they regularly give homework, collect it daily and provide feedback. One of the ATs from high scorer school (GBT1) expressed his approach to homework stating, *"I assign homework, collect it daily, and provide feedback. This approach facilitates easy and engaging learning, ultimately enhancing students' skills."*

Similarly, another AT(GMT1) from the high scorer school also shared his view point saying, *"I assign homework for each lesson and provide feedback upon its completion. By practicing school lessons at home, students find learning easier and the knowledge becomes more permanent. As a result, their performance improves."*

During the interview, GBT3, GMT3 said that they regularly give homework, collect it daily and provide feedback. But lack of support at home leads to incomplete homework and due to this reason many students frequently miss classes due to the pressure of unfinished homework which contributes to students' unsatisfactory results. According to a Bangla class teacher from low performing school (GTB3) and GMT3 stated,

"While students are given homework, many of them come from uneducated or disadvantaged backgrounds and do not receive assistance at home, resulting in incomplete assignments. In my opinion, the absence of completed homework is also a contributing factor to students' unsatisfactory performance."

The researcher wanted to investigate the potential impact of homework on students' academic performance as measured by achievement scores. During the interviews conducted by the researcher, a Bangla teacher (GBT1) expressed their approach to homework, stating *"I assign homework, collect it daily, and provide feedback. This approach facilitates easy and engaging learning, ultimately enhancing students' skills."* Similarly, a Mathematics teacher(GMT1) also shared his view point, saying, *"I assign homework for each lesson and provide feedback upon its completion. By practicing school lessons at home, students find learning easier and the knowledge becomes more permanent. As a result, their performance improves."*

The researcher also conducted interviews with teachers from low-performing schools to gather their perspectives. According to a Bangla class teacher (GTB3), lack of homework contributes to students' unsatisfactory results. The teacher stated,

"While students are given homework, many of them come from uneducated or impoverished backgrounds and do not receive assistance at home, resulting in incomplete assignments. In my opinion, the absence of completed homework is also a contributing factor to students' unsatisfactory performance."

Similarly, a Mathematics teacher (GMT3) from a low-performing school expressed a similar viewpoint, stating,

"Home work are given to students, but a majority of them lack support at home, leading to incomplete homework. Moreover, many students frequently miss classes due to the pressure of unfinished homework. Therefore, I believe that the insufficiency of completed homework is also a significant factor behind students' unsatisfactory academic outcomes."

2.7 Motivational Expression

The researcher wanted to know whether motivation had any effect or not in performing well in achievement scores. While interviewing ATs, it was revealed that motivation is an influencing factor for students' academic performances. During the interview, GBT1, GMT1, GMT2 and GBT2 said that they motivate and inspires the students and they also encourage and behave friendly with the students which positively influences the students' academic performances. In this regard, a teacher of Bangla (GBT¹) from high performing school said, *"I always motivate my students in the classroom. It inspires them, instils confidence, and helps them grow interest in learning. Even I called them by name and became their friend."* Similarly, another Mathematics teacher (GMT²) said, *"I praise, encourage, inspire, award and create friendly behaviour, which positively influences the result."*

When the researcher observed the class of a high scorer school, it was discovered that GTB¹ employed motivational words in his entire lesson. It was also revealed in the interview with the teachers.

In contrary, when interview the teachers of the low scorer school, one AT (GTB³) of Bangla stated, *"I occasionally praised and inspired the students during the lesson to motivate them."* The researcher observed that encouraging phrases were used very few during the lesson of the low scorer schools, such as in a Bangla class teacher (GTB³) asked the students to clap only once during the lesson.

2.8 Assessment

Assessment is very important for ensuring students learning in the classroom. The assessment also impacts on students results. Interviewed teachers described that teachers assess students learning during and after lessons through oral, written and observation. In this regard, a teacher (GTB2) from the good performed school said,

“After presenting the content in the classroom I let the students answer orally and written. I also let them write and say words, sentences, Juktaborno and new words. I ensure their learning through this type of assessment. So that they performed good results”.

An HT from a good school said, *“We conduct a summative and formative assessment in the school. As a formative assessment, we use 3 techniques oral, written and practical. We also record the results of the assessment and inform the students and guardians”.*

There is a positive impact of assessment on students’ good results with knowing students’ status of learning and taking necessary initiatives for achieving learning. HTs and ATs are from good-performing schools regarding the impact of assessment mentioned that regular assessment and feedback discipline the students, results of assessment aware the guardians, enhance students’ interest, and ensure achieving competencies. So that they perform good results. An HT (GHT1) from a well-performing school said, *“Due to continuous assessment and feedback help the students to achieve the learning outcomes, results of assessment aware the guardians, promote students learning. As a result, students perform good results”.*

Another HT (GHT4) from the lower performing school said, *“To know the status of students learning and take necessary initiatives through assessment. Some students don’t attend the assessment process due to their irregularity. So that they don’t perform good results”.*

The researcher observed the low scorer schools (GS16, GS12) and found that teachers had the initiative to assess students but some of the students didn’t involve in the assessment process due to their irregularity. One of the teachers (GS12) mentioned, *“Sometimes I assess students learning but I couldn’t evaluate every student’s and provide the necessary support for ensuring their learning”.* A similar notion was from another AT. He (GMT3) said, *“I think HTL influences the overall performance of the students. Our HT is not thinking about students’ assessment or taking remedial measures for the weak students.”* It also found that the good-performing school’s teachers regularly assess students learning and provide necessary feedback. A teacher of a good-performing school said, *“I regularly assess every student of my class and ensure their learning. Sometimes I take the exam after completing a chapter”.* Similar comments were also found from the HTs of good-performing schools. GHT1 said, *“In our school, we conduct summative and formative assessments. We assess students by oral, written, and practical work. We assess every student and take necessary initiative for slow learners”.*

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Another HT (GHT4) from lower performing school said, *“To know the status of students learning and take necessary initiatives through assessment. Some students don’t attend the assessment process due to their irregularity. So that they don’t perform good results”*.

2.9 Feedback and Remedial Measure

The researcher wanted to know whether feedback and remedial measures had any effect or not in performing well in achievement scores. While interviewing the ATs (GBT1, GBT2, GMT1, GMT2), they said that feedback and remedial measures are very important in ensuring learning for all the learners. During the interview with the teachers, a Bangla subject teacher (GBT¹) from high performing school said,

“During conducting lesson, I find out the slow learners, go to them and provide feedback to them. Sometimes I help them directly, and some other times I use the advance learners to help the slow learners. Thus, I can ensure mastery learning for all my students. I always motivate my students in the classroom. So, feedback and remedial measures are very important in ensuring learning for all the learners.”

Similarly, another Mathematics teacher (GMT¹) said,

“I organize special classes for the weak students during the off period. I also take the help of advance students in the classroom. I take special care of the students myself.”

Similarly, another Mathematics teacher (GMT²) said,

“I make understand backward students at individual level, intensively. If they don't understand something, I explain it with relatively small numbers and with examples and analogies based on real life. I try to explain by myself and by advance students if necessary. Moreover, we regularly inform the parents of the reading status of the children and advise the parents to be more careful about their child's education at home and teach them regularly.”

During the researcher's observation of a high-scoring school, it was evident that both GTB1 and GTB2 provided consistent feedback and implemented remedial measures throughout their lessons. GTB1, in particular, offered appropriate feedback tailored to each student's proficiency level and assessment, while actively taking remedial steps to support those who were struggling. Additionally, GTB1 facilitated interactions between students of varying abilities, allowing advanced students to assist their peers who were lagging behind.

Although the both teachers from low performing school informed the researcher during interview that they use remedial measures and provide feedback to the students in the class. In contrast, the observation of a low-scoring school revealed a different picture. The teachers in this school were not providing feedback to students based on their individual proficiency levels. Instead, even though the students were unable to write properly, the teachers merely marked tick marks in their notebooks without addressing their specific needs. Moreover, the teachers did not appear to identify students who were falling behind nor took any action to address this issue. Consequently, it became evident that many students failed to achieve the desired learning outcomes, yet the teacher did not display any proactive measures to rectify the situation.

One teacher (GTB3) said, “I try to give feedback to some slow learners by using the advance learners, but sometimes it is not possible due to high teacher-student ratio.”

3. Support-related Factors

3.1 Parental Support

The researcher desired to know how much support was provided to children by the parents and whether parental support had any effect or not in performing well in achievement scores. It is found from the answer of the teachers (GHT1, GHT2, GTB1, GTB2) of well-performing schools that most of the parents communicate with teachers to know their children's learning status, supports their children to come to school regularly and provide support to complete homework

and their learning. So that their children perform good results. An HT (GHT 1) said, “Most of the parents regularly communicate with teachers over mobile phones and sometimes come to school to know the learning status of their children and provide the necessary support. They take extra care of their children’s learning to overcome the learning loss. So that their children perform good results”. A teacher (GTB2) from good performing school said,” Most of the parents send their children to school regularly on time, and help the children to complete their homework regularly. Besides parents, other family members like elder brothers and sisters and uncles, etc. help them to achieve the learning outcomes. So, they perform good results”. It is also found from the answer of the teachers (GHT4, GTB3, GTM2) of low scorer schools that sometimes parents communicate with teachers over the mobile phone or come to school to know their children’s learning status, support their children to come to school and provide support to complete homework. So that their children perform good results.

An HT (GHT3) said, “Sometimes some of the parents communicate with teachers over mobile phones and sometimes come to school to know the learning status. They request teachers to punish their children in order for the interest of their learning. Some of them also take extra care of their children’s learning to overcome the learning loss. So that their children perform good results”. A teacher (GTM4) from low scorer school said,” A small number of parents send their children to school regularly, help the children to complete their homework”. Sometimes they inform about the problems of their children so teachers can take proper initiative and they perform good results”.

3.2 Teacher Extra Support

When asked about special activities to improve mathematical skills, teachers from schools with good results mentioned conducting extra classes for weak students, using materials that facilitate learning, and dedicating additional time to carefully explain lessons based on individual students' abilities. A Mathematics teacher (GMT1) said, *"I conduct additional classes and employ instructional materials that facilitate student learning, making the subject more accessible and comprehensible."* In contrast, a teacher from a low-performing school stated, *"No specific activities are implemented to enhance students' mathematical skills."*

The researcher desired to know how teachers support students according to their needs in achieving the competencies. When the researcher asked the teachers of high scorer schools about what kinds of support, they provide to students to achieve the competencies. It was found from their (GTM¹, GMT²) answers that they conducted extra classes, identified slow learners and presented the content with different kinds of teaching aids. A teacher from a high scorer school said,” *I identify slow learners and conduct extra classes using teaching aids. Sometimes I use advanced learners to provide support to slow learners*”. The researcher also found from a lesson observation (LOM2) on subtraction with carry that teacher solved the problem step by step with charts. Also, after checking the students’ understanding teachers helped the backward students personally with an explanation.

When the researcher asked the teachers of low scorer schools about what kinds of support they provide to students to achieve the competencies. The answer to this question a teacher (GTM3) said,” *Generally I don’t take any attempts for the students besides the regular lessons.* Another teacher (GMT4) from low scorer school said,” *Sometimes I conduct extra lessons for the students who are slow learners and provide pens, pencils and notebooks”.*

From the above information, the researcher found that in better-performing schools the teachers are aware enough of the demand of the slow learners. They arrange extra classes and other remedial measures for them if needed. On the other hand, low-performing schools do not give importance to this issue and usually, they do not conduct extra classes or any other remedial measures for the slow learners.

3.3 Food Support

Mid-day meal is very important for students’ smooth participation in the teaching-learning process and achieved learning outcomes. Regarding mid-day meals the interviewed teachers (GHT1, GHT2, GHT3, GHT4, GTB1 GTB3, GTB4, GTM3, GTM4) including teachers with low-performance schools mentioned that most of the students bring their mid-day meal in the school whereas some students didn’t bring their mid-day meal. That is why they were not attentive in the lessons and didn’t achieve learning outcomes and perform better results. An HT (GHT2) from the good performed school said, “*Mid-day meal impact good results of students. Because mid-day meals fulfill students’ food demands and they feel lively. So that they can give their full attention in the classroom. They achieved learning outcomes and performed good results”.*

The interviewed teachers (GHT1, GTB1, GTM1) also mentioned that their school is under the project of supplying Mid-day meals. Nutritious food (Biscuits) was supplied for the students of their schools by the project. A teacher from the good performed school said,

“Our school is under the project of supplying Mid-day meals. Students get nutritious food (Biscuits). So students of our school don’t feel any problems attending the lessons. They come to school regularly and attend the lessons with full attention and they perform good results”.

HTs (GHT3, GHT4) and ATs (GTB3, GTB4) of low-scorer schools mentioned that some students of their schools didn’t bring their mid-day meals. They were not attentive in the lessons and didn’t achieve learning outcomes. They didn’t perform good results.

From the above information, the researcher found that most of the students in good-performing schools have mid-day meals and they can give their full attention to the lessons. The students of their school perform good results. An HT (GHT2) from the good performed school said, *“Most of the students of our school bring their mid-day meal, and some of them back to their home for mid-day meals whose house is very near to the school. Mid-day meals fulfill students’ food demands and they feel lively. So that they can give their full attention in the classroom. They achieved learning outcomes and performed good results”*.

On the other hand, some students of low-performing schools do not bring their mid-day meals and they were not attentive to the lessons, especially the lessons which are conducted at the afternoon. So some of the students couldn’t achieve the learning outcomes and performed good results.

HTs (GHT3, GHT4) and ATs (GTB3, GTB4) of low-scorer schools mentioned that some students of their schools didn’t bring their mid-day meals. That is why some of them did not come to school regularly. They were not attentive in the lessons and didn’t achieve learning outcomes. They didn’t perform good results.

3.4 Coaching or Tutor Support

Many of the students of primary school studying on private tuition for performing good results. Teachers mention while interviewed, the students studying private tuition to get support in their learning who don’t get help from their parents, private coaching is effective for those students who have a learning gap. Teachers GHT3, GTB3 and GTM3 said, “Students who participate in private tuition their result is comparatively better than others”.

On the other hand, teachers (GHT1, GTB2, GTM1) mentioned that the teachers who involve in private tuition have no any training. In addition, lack of subject knowledge and pedagogical knowledge students sometimes receive inaccurate information. When students get the wrong information that impact negatively in their results. A teacher (GTB1) said, *“I think, private tuition is no need for students if a teacher teaches with proper methods and techniques in the classroom. Because most of the private tutors have no training. They don’t have teaching methods and techniques”*. Regarding this issue, a teacher (GTM1) said, *“Sometimes students obtained good results and sometimes achieved poor results. Private tutors don’t have teacher training. Most of the private tutors have no subject matter knowledge and pedagogical knowledge”*.

4. Community related Factors

4.1 School Management Committee (SMC)

The researcher wanted to know whether SMC had any effect or not in performing well in students’ achievement scores. While interviewing GHTs, all interviewed GHTs said that the SMC plays an important role in running the school. They stated that SMC is mandatory in every school.

They also mentioned that sometimes SMC needs to motivate and inspire the parents and students. In this regard, a head teacher of (GHT1) from a high scorer school said, *“SMC supports me in many ways, such as organizing annual sports competitions, mother gatherings, or any other school-related activities and sometimes they support money when I need it.”*

In a similar way (GHT³ and GHT⁴) from the low scorer schools mentioned that they also get different kinds of help from SMC to run the school effectively.

4.2 Teachers-Parents Communication

In reply to teachers-parents communication, it was revealed from all interviewed teachers that the mobile numbers of guardians were collected and enlisted in the registered book of the school, and when needed to contact, teachers talked over the mobile phone. Besides mobile phone communication, home visit, parents meeting and ‘yard meeting’ were the regular schedule of communication with the guardians. The high scorer school teachers said that conscious parents come to school in their own interest to know about their children. One of the assistant teachers (GMT1) said, *“The parents who maintain regular communication with the teachers, their children do better results.”*

On the other hand, the low scorer school teachers opined that they are very much aware of the teachers-parents communication, but the reality is that for some reasons like unaware parents, want of device (Mobile phone), broken family child etc they don’t get necessary respond from the parents, and this is a barrier of student performance. A teacher’s comment is applicable here, *“Most of the parents are unaware of their role and we are unable to get a minimum support from them. This has a negative role in students’ performance (GHT3)”*.

4.1 Parent Education

In reply to the question influence of parents’ education, it was revealed that it greatly influences student performance. All interviewed teachers unanimously replied that educated parents were very much conscious about their children, kept contact with the teachers, took care of their children, checked class work khata, revised lessons at home, and provided materials like khata, pencils, dresses, etc. The high scorer school teachers said that parent education was a fact but if the lessons were completed in the class, it will not be fact in students performance. come to school in their own interest to know about their children. One of the assistant teachers (GMT1) said, *“The parents who maintain regular communication with the teachers, their children do better results.”*

On the other hand, the low scorer school teachers opined that they are very much aware of the teachers-parents communication, but the reality is that for some reasons like unaware parents, want of device (Mobile phone), broken family child etc they don’t get necessary respond from the parents, and this is a barrier of student performance.

4.2 Parent Economic Status

The researcher wanted to know whether parents' economic status had any effect or not in performing well in achievement scores. It is found from the answer of the teachers (GHT1, GHT2, GTB1, GTB2) of well-performing schools that the parents who are economically strong can ensure their children's nutritious food, well dress, learning aids and can provide extra support through private tuition, etc. So that their children perform well. An HT (GHT2) from high scorer school said, "The parents who are economically strong can ensure their children's nutritious food, well dress, learning aids and can expense necessary money for private tuition, etc. So that their children perform well. A teacher (GTB2) from a good-performing school said,

"Parents' strong economic condition impacts their children's education. Because economically strong parents can ensure nutritious food for their children, they can take care of their children's physical and mental health and provide extra support for their learning. So, their children perform well."

It also found from the answers of the teachers (GHT3, GTB4, GTM3, GMT4) of low-performing schools that the parents who are economically weak can't ensure their children's nutritious food, learning aids and can't provide extra support through private tuition, etc. So that their children can't perform well. An HT (GHT3) of a low-performing school said," Due to the parents' economic condition they can't provide tiffin, learning aids, and ensure their children's extra other support. So, their children can't perform well". A subject teacher from a low-performing school teacher said,

"Most of the parents of our school are economically weak. They can't provide nutritious food, tiffin, mid-day meal, and learning aids to their children. Sometimes they engage their children in household work. So, a significant number of students in our school can't perform well".

4.3 Parent Awareness

The researcher wanted to know whether parents' awareness of their children had any effect or not in performing well in achievement scores. It is found from the answer of the teachers (GHT1, GTB2, GTM1, GTM2) of well-performing schools that parents' awareness is very important for their children's good results. They also mentioned that aware parents are very careful to their children, they spend a long time, ensure nutritious food, communicate with teachers to know the status of their children and take extra care for their learning. So, their children perform good results. An HT (GHT2) said, "Parents' awareness is very important for their children's good results. According to my experiences, I have seen that aware parents are very careful and spent a long time with their children, communicate with teachers to know the status of their children and take extra care for their learning. So their children grow in a disciplined way and perform with good results. A subject teacher (GTB1) from a good-performing school said,

“I think Parents’ awareness has a positive impact on students’ results. Aware parents always look after their children learning. They try to support their children after knowing which students doing well and why they (students) doing well in the class. Besides these, parents also ensure nutritious food, well dressed and a house environment. So, their children perform good results”.

It also found from the answers of the teachers (GHT3, GTB4, GTM3, GMT4) of low-performing schools that the unaware parents are not careful to their children’s education, they don’t spend time for their children. So, their children don’t come to school regularly. They don’t study at home and can’t perform with good results”. An HT from a low-performing school said, *“Most of the parents in the area of this school are not aware. They are not careful to their children. They don’t spend time learning for their children. So, their children can’t perform good results”.* A subject teacher from low scorer school said,

“We inform the status of children’s performance and the learning gap to the parents. We request them to take the initiative for studying their children at home and send them to school regularly. But most of them don’t take any initiative for the learning of their children”.

4.4 Qualitative Data for Kindergarten Schools

1. School-related Factors

1.1 Headteacher Leadership (HTL)

The researcher wanted to know whether Headteacher leadership had any effect or not in performing well in students’ achievement scores. It was found from their KHT1, KHT2 and KHT4) answer that as academic leader they take some necessary initiatives in order to ensure students good results; such as they discussed with subject-based teachers and checking their preparation, observing lessons and giving necessary feedback, ensuring students and teachers regular attendance, ensuring completing every student’s homework and classwork, identify slow learners and maintain an extra diary for them, communicating with guardians, taking extra classes after school hours and conducting a meeting with teachers about students results, etc. KHT1 said,

“I discussed with subject-based teachers about their preparation, observing their lessons and giving necessary feedback, ensuring teachers and students regular attendance, ensuring completing every student’s homework and classwork, ask the teachers to identify slow learners and maintain an extra diary for them,

communicating with guardians, arrange extra classes after school hours and conducting meetings with teachers about students results.

Teachers (KTM1, KTM4, and KTB4) mentioned that Headteacher leadership is very important for maintaining discipline, giving necessary instruction and providing support in conducting quality lessons in the classroom. A teacher (KHT4) said, *“I think there is a positive impact of Headteacher leadership in students’ results because HT gives necessary advice and support for ensuring students learning”*. Another teacher (KTB4) said, *“As an academic leader Headteacher’s support and instructions are supportive for us to ensure quality teaching-learning and students’ good results”*.

1.2 Student Diary

The researchers wanted to know about the importance and uses of Student Diary by the teachers of the performing well KG schools. In reply to this question they were informed that they are aware of this matter and they use it regularly. They also added that SD is very useful to communicate with the guardians. In addition, they also disclosed that they write all the necessary information like homework, students, academic achievements, necessary information and any other individual problems of the specific learners. In this regard a subject teacher of a KG school (KHT1) mentioned,

“Student Diary is very important to inform home task, academic calendar, and any other message to the guardians. Thus, they can help their children in their studies including homework and can take help from the teachers over mobile phone. Thus, students can do better achievements. On the other hand the guardians can write any message or any other query in needed. Thus the SD works as a bridge between the school and the guardians.” (KHT1)

1.3 Student Regular Attendance

Students’ regular attendance in kindergarten is essential for continuing their learning, achieving learning outcomes and performing good results. Most of the interviewed KHTs mentioned that students can’t maintain learning continuity and can’t achieve learning outcomes due to their irregular attendance in school. So that they can’t perform good results. On the other hand, the students can achieve learning outcomes and can perform good results who are regular in school.

A KHT (KHT4) said, *“There is a relationship between student’s attendance in kindergarten and good or bad results. Students can’t maintain learning continuity and can’t achieve learning outcomes due to their irregular attendance in school”*.

2. Teaching-Learning-related Factors

2.1 Applying Training Knowledge

The researcher aimed to explore the available training programs for teachers of Kindergarten school. In response, the head teacher (KHT1) of the Kindergarten school mentioned that

“Subject wise training is arranged every 6 months from Kindergarten Association. Teachers are taught different techniques for teaching. teacher ensure the active participation of the students in different activities. Parenting skills are taught in parents' meetings. They act accordingly. As a result, the students' results are better.”

KHT3 and KHT4 opined in a very similar way about the training scope for the Kindergarten school teacher. They said that there are no ample scope for teacher training for Kindergarten school teacher. According to KHT3,

“There is no training system for kindergarten school teacher either government or private. However, the Kindergarten Association has recently started training for teachers. It is day long training. However, 1 day in a week teachers discuss about the lesson problems”

Similarly, KHT4 said,

“We have arranged three trainings so far by talking with URC. All the training that comes from the government is only for government primary schools. Besides, we have no training. But training enhance the teaching skills of the teachers. Training help the teacher how to apply the different techniques in the class. Trained teachers take good classes. As a result, school results are better. If we were trained, we would know different teaching techniques.”

Similarly, KTB1, KTB2, KTB3, KTM1, KTM2, KTM3 opined similarly that they usually did not have any training. That's why they teach in their own way. For example, KTB3 said,

“We have no enough training. But BRAC gave a day long training. However, in the weekly meeting of the school, students and teachers discuss about their studies. I think the results of the students are better due to this effect.”

According to KTB1,

“I allow students to create new words, I make teaching easy teaching techniques for every chapter. I make understand the students by explaining the new lesson with practical examples. Take exam every month. Teaching weak students with extra care, adoption of easy approach for weaker students, makes parents aware, encouraging the students to regular school attendance.”

2.2 Teaching-learning Strategies

The researcher aimed to investigate the consistent activities carried out by teachers in high-performing Kindergarten schools. During interviews, a Bangla teacher (KBT1) shared his classroom practices, stating, *“I ensure daily reading and writing assignment from each student, give homework to students, give students to read Bangla readings, make questions from the assign reading text.”* Another Bangla teacher (KBT2) said,

“I open the Bangla book and tell the content, if I have time, I read the text. Let the weak students to read, gradually let everyone to read on different days. I Write the spellings, I intentionally write the wrong spellings and ask the children to write the correct spellings. I show and write hyphens, make words, make sentences. Sometimes I create sentences, sometimes the students create sentences. I finish the daily lessons in the class every day. I also give homework.”

Similarly, a Bangla teacher (KBT3) from low performing Kindergarten school said,

“I do the following activities in teaching Bangla. At first, I go to the class and check the homework of the chapter and then teach the spelling and grammar of the next reading. At this stage I ask whether the students have understood what they have read. Each student in the class is asked to stand and read once.”

When researcher interviewed the Math teacher a mathematics teacher (KTM1) said, *“I give homework, explain the class work or assign activities, arrange the inattentive child in front, divide the students into groups and assign group work, I evaluate the lesson every day.”* KTM2 said, *“I finish the daily lessons in the class every day. I give homework daily and provide feedback.”*

In contrast, a teacher (KTM3) from a low-performing Kindergarten school stated,

“Absence of students is a problem, only 17 out of 30 students are present today. Good students stay in this school up to grade2 and then admission into government primary school from class3. As a result, good students leave the school. I cannot use teaching aids and I have no training. No specific activities are implemented to enhance students' mathematical skills.”

When the researcher observed the class of a high scorer Kindergarten school, it was discovered that mathematics teacher from KTM1 apply different activities in his class. Teacher reads the mathematics problem and explains it to the students with real examples. Teacher ask the students to the board and solve the problem on it.

But there was no preparation of KTM3.

“Teacher lacks adequate preparation for teaching. Since there is no lesson plan, preparation, presentation and assessment phase work was not done properly. No strategy was used. Only 1 subtraction problem was solved and the rest time was completed by checking it only. Another subtraction is given at the end.”

The researcher aimed to investigate the consistent activities carried out by teachers in high-performing schools. During interviews, a Bangla teacher (GBT2) shared his classroom practices, stating,

"I begin the class by exchanging greetings with students, inquiring about their well-being, and creating a conducive learning environment. I check students' prior knowledge and introduce teaching aids, write the lesson title on the board, and ask questions aligned with the learning outcomes. I encourage independent thinking, pair discussions, and group sharing. I also do the following activities in the class such as practicing pronunciation, writing on the board, reading passages multiple times with proper pronunciation, asking oral questions to clarify the content, and evaluating student progress through small questions and written evaluations, providing necessary feedback to improve skills."

Similarly, a Mathematics teacher (GMT2) mentioned his approach,

"I typically start the lesson by assessing students' prior knowledge and creating a favorable learning environment. To make the lesson engaging, I share relevant and motivating stories at the beginning, and when necessary, during the lesson. I explain mathematical concepts by incorporating real-life, semi-realistic, and abstract examples, utilizing attractive teaching aids. Throughout the lesson, I actively involve students at every stage, seeking their participation and assistance. I particularly prioritize the inclusion and engagement of weaker students, which significantly contributes to overall student performance."

When asked about special activities to improve mathematical skills, teachers from schools with good results mentioned conducting extra classes for weak students, using materials that facilitate learning, and dedicating additional time to carefully explain lessons based on individual students' abilities.

A Mathematics teacher (GMT1) said, *"I conduct additional classes and employ instructional materials that facilitate student learning, making the subject more accessible and comprehensible."*

In contrast, a teacher from a low-performing school stated, *"No specific activities are implemented to enhance students' mathematical skills."* Teachers in schools with good results emphasized the importance of checking student understanding after giving instructions. On the other hand, teachers in schools with poor results do not follow this practice. A Mathematics teacher (GMT1) highlighted the significance of providing clear instructions when assigning math problems. He said, *"I try to give clear instructions when presenting math problems, ensuring that students understand the given instructions. Moreover, I actively verify their comprehension of the instructions."*

Overall, the findings suggest that clear instructions, conducting extra classes, using appropriate materials, and providing individualized attention contribute to positive student outcomes in high-

performing schools. However, low-performing schools may lack these specific activities and practices, which may affect student performance.

The researcher desired to know what processes teachers use in teaching Bangla. When the researcher asked the teachers of high scorer KGs about what kinds of processes, they use to teach Bangla lessons in the classroom. It was found from their (KTB¹, KTB²) answers that they let the students to read the text, identify difficult words in the text, let them make sentences by the words, intentionally make spelling mistakes and help the students to make corrections, ensure and check every student's homework, and let the students to answers the questions from the text, etc. A teacher (KBT2) from a high scorer KG said,

“I start my class by creating the attention of all students. And then I explain the content of the lesson, read the text and help them to read correctly, I write and explain the words with ‘Jukto Borno’, intentionally I write some words with spelling mistakes and help the students to make the correction, ensure and check every student's homework, help the students to say and write answers of the questions from the text, and finally I give them homework”.

It is also found from the lesson observations (KLOM1, KLOM2) of the high scorer KGs. The teachers read the text and let some of the students read the text, teachers wrote some words with ‘Jukto Borno’ and helped the student to learn the words, teachers asked questions from the text and help them to answer orally and in writing, and gave them homework, etc. It is also seen that teachers provided individual support to some slow learners.

On the other hand, the researcher found from the answers of the teachers (GBT3, GBT4) of low scorer KGs about the teaching process of Bangla that they check every student's homework, read the text and let the students to read, identify difficult words of the text and explain, let them to make sentences by the words, Check their learning and give them homework, etc. A teacher (KTB4) from a low scorer KG said, “At first *I check every student's homework, and then I read the text and help them to read correctly, I write and explain the words with ‘Jukto Borno’, I check their learning and finally I give them homework*”. Researchers have seen similar activities in the Bangla lessons of low scorer KGs.

When the researcher asked the teachers of high scorer KGs about what kinds of processes, they use to teach mathematics in the classroom. It was found from their (KTM¹, KMT²) answers that they change the sitting arrangement considering students' attentiveness, pose the problem/key question, demonstrate how to solve the problem on the board, help them to solve such kind problems in groups, let the students solve the problems individually and check their learning, and finally give them homework, etc. A teacher (KTM1) from a high scorer KG said, “*I change the sitting arrangement considering students' attentiveness, posed the problem/key question,*

demonstrated how to solve the problem on the board and help them to understand, help them to solve such kind problems, check their learning, and finally give them a home task, etc.”.

It is found from the lesson observations (LOKM1, LOKM2) of the high scorer KGs that The teachers checked the homework, write the sums on the board and solved with explanation, let the students to do such types of sums, checked their learning and gave them homework. It is also seen that the teachers individually help some of the students to do the sums.

When the researcher asked the teachers of low scorer KGs about what kinds of processes they use to teach mathematics in the classroom. It was found from their (KTM¹, KMT²) answers that they write the problem on the board, solve the problem with explanation, help the students solve such problems on their notebooks, check their learning, and finally give them homework, etc. A teacher (KTM3) from a slow scorer KG said, *„I solve the problems on the board and let the students solve such types of problems. I check their learning through let them solve a problem individually, and finally, I assigned homework for them”*. It is also found from the lesson (KLOM3) observation of low scorer KG that a teacher wrote a subtraction with carry on the board and solved it with an explanation, let students do subtraction from the textbook, check their learning and gave them homework. The researcher also gains nearly similar experiences from the lesson observation (KLOM4) of another low scorer KG.

2.3 Teacher Preparation

The researcher wanted to know whether lesson preparation had any effect or not in performing well in achievement scores. When researcher interview the ATs of the kindergarten school, they opined that pre-lesson preparation is important for students’ academic achievement. But during the interview, KTB1, KTB2, KTB3, KTB4, KTM1, KTM2, KTM3 commonly said that they usually do not prepare any written lesson plan or preparation. But some of them write down the topic of what will be taught tomorrow in the diary. As such, bring unwritten preparation. KTM1 said, *“Lesson preparation helps the teacher about content knowledge, creating a safe environment in the classroom, and checking the students’ prior knowledge, it has an immense impact on student outcomes.”* A teacher of Bangla (KTB2) from good performing kindergarten school, said, *“I have no written plan. But write down the topic of what will be taught tomorrow in the diary. As such, bring unwritten preparation.”*

Similarly, a teacher of Mathematics (KTM2) from high performing kindergarten school said, *“I have no written plan or preparation.”* Another kindergarten school teacher (KTB3) from low performing school said similarly, *“Lesson planning is not usually done.”*

When the researcher observed the class of a high scorer KG school, it was discovered that there was no preparation of a KTB1, KTB2, KTB3, KTB4, KTM1, KTM2, KTM3. They have no written lesson plan, teaching aids, or They do not have teachers’ guide. A Bangla teacher KTB 4 is just

lecturing directly from the book. No materials or any kind of teaching aids brought to the class room.

Similarly, Mathematics teacher (KTM2) started the lesson everyone so coolly by mistreatment. He announced the lesson and wrote it on the board. But his Class is smaller than students. There is a slight lack of light and air. In the class of KTM3, teacher have no preparation as such. No lesson plans, or teacher's guide. So, he did not follow any structured method of teaching

2.4 Teacher Instruction

The researcher aimed to explore the available training programs for teachers of Kindergarten school. In response, the head teacher (KHT1) of the Kindergarten school mentioned that

“Subject wise training is arranged every 6 months from Kindergarten Association. Teachers are taught different techniques for teaching. Teacher ensure the active participation of the students in different activities. Parenting skills are taught in parents' meetings. They act accordingly. As a result, the students' results are better.”

KHT3 and KHT4 opined in a very similar way about the training scope for the Kindergarten school teacher. They said that there is no ample scope for teacher training for Kindergarten school teacher. According to KHT3,

“There is no training system for kindergarten school teacher either government or private. However, the Kindergarten Association has recently started training for teachers. It is day long training. However, 1 day in a week teacher discuss about the lesson problems”

Similarly, KHT4 said,

“We have arranged three trainings so far by talking with URC. All the training that comes from the government is only for government primary schools. Besides, we have no training. But training enhance the teaching skills of the teachers. Training help the teacher how to apply the different techniques in the class. Trained teachers take good classes. As a result, school results are better. If we were trained, we would know different teaching techniques.”

Similarly, KTB1, KTB2, KTB3, KTM1, KTM2, KTM3 opined similarly that they usually did not have any training. That's why they teach in their own way. For example, KTB3 said,

“We have no enough training. But BRAC gave a day long training. However, in the weekly meeting of the school, students and teachers discuss about their studies. I think the results of the students are better due to this effect.”

According to KTB1,

“I allow students to create new words, I make teaching easy teaching techniques for every chapter. I make understand the students by explaining the new lesson with practical examples. Take exam every month. Teaching weak students with extra care, adoption of easy approach for weaker students, makes parents aware, encouraging the students to regular school attendance.”

2.5 Teaching Aids

The researcher desired to know whether teaching aids had any effect or not in performing well in achievement scores in Bangla and mathematics. When the researcher asked the teachers of high scorer KGs about what kinds of teaching aids, they use in teaching mathematics, It was found from their (KHT1, KTM¹, KMT²) answers that they use different kinds of concrete and semi-concrete teaching aids considering contents. Like scale, pencils. Sticks, seeds, geometry box, pictures of textbook, charts, etc. They ((KHT1, KHT2, KTM¹, KMT²) also mentioned that teaching aids are very important for making the mathematical concept easily understandable for the students. A teacher (KMT1) said, *“I use different kinds of concrete aids like sticks, seeds, leaves, scale, geometry box, textbook, Notebook, etc. I think, Teaching aids make the class easy, enjoyable, lively, and life oriented”*. It is also found from the observation of mathematics lessons in the high scorer KGs that teachers only used the blackboard to teach addition and subtraction (KLOM1, KLOM2)

When the researcher asked the teachers of low-scorer KGs about what kinds of teaching aids they use in mathematics. Although the teachers of low-scorer KGs mentioned that teaching aids are very important for making the mathematical concept easily understandable for the students. But it was found from their (KTM3, KTM4) answers that they used Geometry boxes, scales, sticks, papers, charts, etc. A teacher (KMT4) of low scorer school said, *“I use geometry box, sticks and scale only in mathematics lessons*. It is also found from the lesson’s observation of low scorer KGs that teachers only use the blackboard to teach mathematics (KLOM3, KLOM4).

When the researcher asked the teachers of high scorer KGs about what kinds of teaching aids, they use in teaching Bangla, it was found from their (KHT1, KTB¹, KBT²) answers that they use textbook to teach Bangla. A teacher (KBT2) of high scorer KG said, *“I use only textbook in the classroom to teach Bangla”*. It is also found from the observation of Bangla lessons in the high scorer KGs that teachers only used the textbook to teach Bangla (LOKB1, LOKB2).

When the researcher asked the teachers of low-scorer KGs about what kinds of teaching aids they use in mathematics. A teacher said, *“I use textbook to teach Bangla”*. Another teacher of low scorer

KG said, *“I use textbook, board, marker scale, etc. to teach Bangla”*. It is also found from the lessons observation of low scorer KGs that teachers only use the textbook to teach Bangla.

2.6 Home Work

The researcher wanted to investigate the potential impact of homework on students' academic performance as measured by achievement scores. While interviewing AT of Kindergarten school, it was revealed that homework plays a significant influence on students' academic achievement. During the interview, all the teachers (KTB1, KTB2, KTB3, KTB4, KTM1, KTM2, KTM3) said that they regularly give homework, collect it daily and provide feedback. A teacher from high scorer Kindergarten school (KTB2) said, *“I give homework regularly and collected. If homework is given, the reading of the class is sustained by re-reading it at home.”* KTB3 said, *“Students are regularly given homework and checked whether they have done it correctly.”*

Similarly, another AT(KTM3) from the high scorer school also shared his view point, saying, *“I give homework regularly and collected. Students done the homework. Children of conscious parents do not have any problem in giving homework.”*

Another low performing kindergarten school teacher also (KTM4) said, *“homework is regularly assigned and collected from students. Homework has many implications. Particularly it is important for Math. The different rules of Math that are taught are forgotten if not practiced over and over again. Home work is one of the ways to practice.”*

2.7 Motivational Expression

The researcher wanted to know whether motivation had any effect or not in performing well in achievement scores. While interviewing the kindergarten school teacher, it was revealed that motivation is an influencing factor for students' academic performances. During the interview, KTB1, KTM1, KMT2 and KTB2 said that they motivate and inspires the students and they also encourage and behave friendly with the students which positively influences the students' academic performances. In this regard, a teacher of Bangla (KTB¹) from high performing Kindergarten school said, *“I praise, encourage the students and call students by their name. Students like it and it makes them interested in reading, students are motivated and it help the academic results of the students”* Similarly, another Mathematics teacher (KTM1) said, *“I appreciate the students, it makes students happy, focused on studies, interested in good results.”*

When the researcher observed the class of a high scorer school, it was discovered that KTB¹, KTB2, KTB3, KTB4, KTM1, KTM2, KTM4 employed motivational words in his lesson. Teachers know all students' names and behaves friendly.

2.8 Assessment

Assessment is very important for ensuring students learning in the classroom. The assessment also impacts students' results. Interviewed teachers (KHT1, KHT2, KTM1, and KTB3) described that teachers assess students learning through class tests, weekly tests, monthly tests, model tests, terminal tests and early tests. Besides these, they conduct different other tests like group tests, uniform and discipline tests, attendance tests, etc. A teacher (KHT1) said, *“We assess our students through different types of tests like class tests, weekly tests, monthly tests, model tests, terminal tests and early tests. We prepared report cards for every student and deliver these to guardians”*.

Teachers (KHT2, KTM1, KTM2, KTM4, and KTB4) also mentioned that after every lesson we assess students' learning through oral and written tests and give necessary feedback to the slow learners. In this regard, a teacher (KTB2) said, *“After presenting the content in the classroom I assess students learning through oral and written test. I ensure their learning through this type of assessment. So that they performed good results”*.

Another teacher KTB1 said, *“We conduct a formative assessment in the classroom. In order for ensuring students' good results we also assess students through weekly tests, monthly tests, and model tests. So that students of our school perform good results. Students' guardians are interested in different types of tests and results of their children”*.

2.9 Feedback and Remedial Measure

The researcher wanted to know whether feedback and remedial measures had any effect or not in performing well in achievement scores. While interviewing the ATs of Kindergarten school (KTM1, KTM2, KTM3, KTM4, KTB1, KTB2, KTB3) they said that feedback and remedial measures help the students able to understand, students are interested in studies, attends classes regularly and help the students to achieve good 'academic results. During the interview with the teachers, a Math subject teacher (KTM¹) from high performing school said,

“I Arranges separate classes for the backward students, conducts team evaluations. I reduce the reading activity for the struggling students and explain the topic again and again. I also arrange discussion among the classmates. Apart from this I inform the parents about his child's progress. And all those feedback and remedial activities help the students to achieve good academic results”

Similarly, another Math teacher (KTM²) said,

“Some need-based measures are taken in classes for backward children. There are sections based on performance for classes 3rd to 5th. Classes are taught according to the students' status in the section. There is an opportunity to change sections on the basis of merit at any time of the year.”

In this regard another Bangla teacher from high performing kindergarten school (KBT¹) said, *“Teaching weak students in a easy way and give the time sincerely and making parents aware about his or child”*. Another Bangla teacher from low performing kindergarten school (KBT³) said, *“We give time to students outside the class. Students are introduced to spelling, pronunciation. Students are allowed to read and write more.”*

During the researcher's observation of a high-scoring kindergarten school, it was evident that both KTB1, KTB2, KTM1, KTM2 provided consistent feedback and remedial measures throughout their lessons. GTB1, explained to the backward students through short reading. In the mathematics class, there were no backward students in this lesson, teacher(KTM1) Confirmed all student diary writing.

Although the both teachers from low performing school informed the researcher during interview that they use remedial measures and provide feedback to the students in the class. In contrast, the observation of a low-scoring school revealed a different picture. -There was no remedial work for backward students. Because the teacher himself did everything.

3. Support-related Factors

3.1 Parental Support

It is not possible to fill-up the learners' learning gaps, ensuring regular attendance and overall development of the students (like physical, mental, social and spiritual) by the teachers only. It also needs to provide necessary support by the guardians for better achievement of the learners. So a very good relationship is needed between the parents and the schools.

In this regard the teachers of the better performed KG schools were asked about the importance of guardians' support and how much support they get. In response to this question they opined that guardians support is very important for better performance of the learners, and they take this support in different ways. A headteacher (KHT1) stated,

“Guardians support is very important in students' achievement. Subject teachers identify the weakness of the learners and inform to their parents as they can take necessary steps. Similarly, when the parents face any problems in their children's studies, they inform it to the teachers and the teachers take necessary steps to remove the problems.”

In reply to the question, how do they contact with the guardians, the headteachers informed that usually they contact to them by mobile phone, sometimes they come to schools, and during

parents' gathering they also share about the problems and needs of their children. A subject teacher (KTB1) stated,

"If needed the guardians contact to us by mobile phone, sometimes they come to school, when we meet any of them on the way, and they join in the monthly parents' meeting, which is held once in a month. Sometimes we contact to them over mobile phone. It helps to solve the problems"

On the other hand, the low achievement school teachers opined that guardians' support has great influence in students' performance, but all the time they don't get necessary respond from the parents. A teachers (KTB3) stated, *"We have some aware and educated guardians, and they contact to us, provides suggestions and help their children to study their lesson at their home, but all of our guardians are not like this."*

3.2 Teacher Extra Support

The researcher desired to know how teachers support students according to their needs in achieving the competencies. When the researcher asked the teachers of high scorer KGs about what kinds of support, they provide to students to achieve the competencies in mathematics. It was found from their (KTM¹, KMT²) answers that they arranged mathematical competitions, used different types of mathematical methods, presented mathematical puzzles, etc. A teacher from a high scorer KG said, *"I encourage students to solve the mathematical problems, I arrange mathematical sum competitions, and I use different types of methods to teach mathematics"*. The researcher also found from a lesson observation (KLOM1) on subtraction with carry that teacher solved the problem step by step on the board and let the students copy the solution.

When the researcher asked the teachers of low scorer KGs about what kinds of support, they provide to students to achieve the competencies. The answer to this question a teacher (KTM3) said, *"Generally I don't take any attempts for the students besides the regular lesson"*. Another teacher (KTM4) from low scorer school said, *"Sometimes I identify slow learners and show them in front of the advanced students to make conscious"*.

When the researcher asked the teachers of high scorer KGs about what kinds of support they provide to students to achieve the competencies in Bangla. A teacher from a high scorer KG said, *"I use digital methods to teach Bangla. I also use newspapers, and magazines in my lessons and arrange essay competitions"*.

When the researcher asked the teachers of low scorer KGs about what kinds of support they provide to students to achieve the competencies in Bangla. The answer to this question a teacher (KBT3) said, *"I conduct extra classes and arrange essay and debate competitions. We prepare individual report card and give it to the guardians"*. Another teacher (KBT4) from low scorer school said, *"I give the students homework and consult with guardians about students' learning"*.

3.3 Food Support

Food support is very important for students' smooth participation in the teaching-learning process. Regarding mid-day meals, most of the interviewed teachers (KHT1, KHT2, KHT3, KTB1, KTB2, KTB3, KTM1, KTM4) including teachers with low-performance Kindergarten mentioned that their school end at 11:50 am. So that mid-day meal is not necessary for their students. They also mentioned that most of the students of their schools have taken their breakfast before coming to school and can give full attention in the classes. Whereas some of them (KHT4, KTB4) mentioned that sometimes some students had not eaten breakfast before coming to school and couldn't pay attention in classes. It is also found from their answer that their school hour is from 8:30 to 11:50 am. So students of KGs are in not need to bring the mid-day meal. An HT (KHT1) from the well-performed KG said, *"All of the students in my school have taken their breakfast. So that they can give their full attention in the classroom. They achieved learning outcomes and performed good results"*.

A teacher (KHT2) said,

"Students of our school do not need mid-day meals. Because the school time is from 8:30 am to 11:50 am. Students get a tiffin break at 10:30 am. Most of the students of our school bring a tiffin. Sometimes some of the Guardians also bring tiffin and feed their children".

3.4 Coaching or Tutor Support

The researcher desired to know how many students of Kindergarten school study on private tuition and what is the impact of private tuition on their results. When the researcher asked the teachers of Kindergarten about what portion of Kindergarten students' study in private and what is the impact of private tuition on the results. Teachers (KHT2, KTM2, KTM1, KTB2 & KTB4) of Kindergartens mentioned while interviewing, comparatively slow learners studying private tuition to get support in their learning. They also mentioned that around 50% of Kindergarten students study on private tuition, which is effective for performing good results. KHT1 said, *"I think private tuition is good for slow learners because they can minimize their learning gap. It is also good for advanced learners because they get extra support to make them more competent. So that students perform good results"*.

On the other hand, Teachers (KHT4, KTB2) mentioned that private tuition has no positive impact on students' results. Because the teachers who involve in private tuition have no training. Due to a lack of subject knowledge and pedagogical knowledge, students sometimes receive inaccurate information. When students get the wrong information that impact negatively in their results. A teacher (KHT4) said, *"I think, private tuition is no need for students if a teacher teaches with*

proper methods and techniques in the classroom. Because most of the private tutors have no training. They don't have teaching methods and techniques".

4. Community related Factors

4.1 School Management Committee (SMC)

The researcher wanted to know whether SMC had any effect or not in performing well in students' achievement scores. While interviewing all the KHT said that SMC has a key role for the students' academic performance. During the interview, KHT1, KHT2, KHT3 said that formally there is no committee to run the kindergarten school in the name of SMC. According to KHT2, *"It is a private ownership institute. The director himself takes all the decisions here. There is no committee. Sometimes he consults with the teachers. He attends school almost all the time."*

4.2 Teachers-Parents Communication

The researchers wanted to know the importance of parents' communication on students' performance and how much the parents communicate with the teachers. In reply to the question, the headteachers opined that parents' communication enhance students' performance, especially to filling up learning gaps and to prepare the homework at home. A principal (KGHT1) commented, *"The best benefit of parents' communication is that they teachers help the parents to find out the area of development of their children"*. The subject teachers (Bangla and Mathematics) also agreed to the headteachers' opinion. A Subject teacher (KTB4) stated, *"... sometimes the parents come to school and talk to us about the problems and progress of their children in studies. Thus, the parents take care to their children and the children make progress in their studies."*

The headteachers and the subject teachers added that the parents contact to them by mobile phone, through student diary, monthly parents meeting and sometimes they come to school to talk directly with the teachers.

4.1 Parent Education

Parents' educational status is an important factor which have an influence over academic performance of the learners. The researchers wanted to know the importance of parents' education over the performance of the KG school learners and how much influence they have over their learners' performance. In response to this, the principals (KGHT1, KGHT3 and KGHT4) opined that parental education is an important factor for children's educational performance, because the educated guardians are aware enough to understand the necessity and learning gaps of their children and can provide support to them. A principal (KGHT4) stated,

"I am telling from my experience (24 years) that at least SSC passed parents can provide all necessary support to their children and they perform well. On the other

hand, the parents who are not educated like this, they are not aware enough to understand the needs and provide necessary support to their children, and as a result they suffer in different problems including learning gaps.”

On the other hand, a principal (KGHT2) disagreed to and opined that parents’ educational background do not effect on the performance of their children, because all of their parents are aware enough.

Subject teachers (Mathematics and Bangla) also opined that parents educational status effects on the academic performance of their children. They argued that educated guardians can read the student diary, help them in doing homework, and other necessary help. As a result, their children perform well. On the other hand, with some exception, illiterate or less educated parents cannot provide these kinds of supports and their children fall in learning gaps.

4.2 Parent Economic Status

The researchers wanted to know how much parents’ financial status affect their children’s academic performance. In response to this question the principals of the KG schools (KHT1, KHT2 and KHT4) opined that there is no relationship between parents’ financial status and their children’s performance, while all the subject teachers (Bangla) except one agreed to this opinion, however a teacher (KTB1) commented that money is needed to pay the private tutors. On the other hand a teacher (KTB3) strongly argued that parents’ financial situation directly impact on the academic performance of their children. She also added that most of the students who achieve lower score is from financially weaker family. All the mathematics teachers opined that there is no relationship with parents’ financial situation and their children’s academic performance.

4.3 Parent Awareness

The teachers of the better performed KG schools believe that educated and financially solvent guardians are more aware and they can their children’s problems and provide them comfortable residence, nutritious foods (balanced diet) and support in their studies directly, or by providing house tutors and coaching centres. They this as one of the secrets of their better performance.

In this regard a subject teacher (KTM1) commented,

“All of our guardians are aware enough to understand their children’s needs, if needed they can communicate with the teachers, they can understand the information as they can read diary, they can create positive attitude among their children and can help their children to understand the contents. She also added all of our guardians are learned and we get any kinds of help from them if needed”.

The better performed KG school teachers also opined that guardians' financial solvency has a little influence on learners' performance, because money is needed to pay the private tutors and coaching centres. An assistant teacher (KTB1) mentioned, *"For better performance extra support like private teacher or coaching centre is needed, and for this money is essential"*.

On the other hand, the teachers of low performance schools also opined that guardians' awareness is an important factor for students' better performance. A teacher (KTB3) explored,

"Educated guardians are aware enough and their children perform better. I think guardians' awareness has 100 percent influence on children's better performance last year six students obtained scholarship from our school and the guardians of all of them were learned and aware. Sometimes the educated and aware guardians come to school and request to repeat some difficult or missed sessions".

Low scoring school teachers opined that guardians' financial situation have a great influence on the learners' academic performance. A teacher (KTB3) commented, *"Of course, Parent's financial situation is responsible for their children's success"*.

5. Discussions and Findings

The focus of this chapter is to discuss data findings collected for this study. The chapter is divided into four parts. Part one presents discussion on the school related factors. Part two contains the discussion on the teaching-learning related factors. Part three presents discussion on out of school related support and part four presents the discussion on community related factors. Both Government Primary Schools and Kindergartens data were discussed together and explored the influential factors in this chapter.

5.1 School-related Factors

1.1 Headteacher Leadership

Huang and Shen 2022, state that the notion of HT Leadership conveys that HT exercise influence over key functions of teaching, learning, and how schools operate. Scallon, Bristol and Esboldt (2023) mentioned that headteachers who effectively establish positive relationships with teachers, students, and parents, provide instructional guidance, and foster a learning environment that promotes collaboration and student engagement is more successful in raising student academic achievement. In this study, the HTs of GPS also stated that they have carried out sessions and

supervised academic activities, confirmed attendance, set and executed development plans, and maintained student-teacher-parent-community-SMC relationships. According to GHT1, *“Academic activities and other matters are well-organized and disciplined. Thus, students’ academic performance becomes satisfactory.*

Hattie (2009) conducted a comprehensive meta-meta-analysis in education, which synthesized over 800 meta-analyses that are related to student achievement. Reviewing 11 meta-analyses between 1989 and 2008, including 491 studies and 1257 effect sizes, Hattie (2009) found the average effect size of HT Leadership on student achievement was $d = 0.36$ and he interpreted that this is one of the highest influential factors for student achievement. The current findings of this study, the ATs of GPS, revealed the same notion. They said that HT Leadership, of course, influenced students’ performance. According to them, HT ensures and mentors teaching-learning activities in the classroom.

Dimopoulos (2020), it is important for Headteachers to monitor and supervise academic activities, talk with weak students, and build up good relationships with students, teachers and guardians for better academic performance; otherwise, the student’s performance will decline. In this study, GMT3 also mentioned that his HT is less serious to ensure active teaching learning in the classroom. This means the leadership of HT in this school is not supportive to improve student performance. So, this impacts the result of the achievement test of this school. The achievement score of GS16 is the second lower in the achievement tests. The researcher’s observation found it somewhat similar in the case of lower scorer schools.

Witziers et al (2003) claimed that HTL directions and relationships with students influence students’ academic performance. In this study, it is also evident in the achievement test score. HT Leadership influence schools where visible (GS20 and GS14) got high scores on achievement tests; on the other hand, low scorer schools of GPS (GS16 and GS12) on achievement tests where HT Leadership influence is not so visible. Therefore, the Headteacher leadership of the school has influenced students’ academic performance in government schools.

Headteachers (KHT1 and KHT2) from high scorer Kindergarten schools (KG6 and KG10) opined that they are serious about maintaining school discipline, teacher-student regular attendance, checking and monitoring teaching-learning activities, arranging extra classes for slow learners, keeping good relationships with parents, taking especial care of the class test and monthly test, organizing a meeting with directors-parents-teachers. This reflection was found during observations and in the achievement test scores. In contrast, the low scorer Kindergarten schools (KG18 and KG12), KHT4 mention that HT Leadership is not a fact. HT Leadership will be an influential factor if there are quality teachers.

1.2 Student Diary

Student diary is used to write message and homework for the students. Usually, it is written by the teachers for every individual student. By reading the student-diary the guardians also can get the information properly. Thus, it works as a bridge between the teachers and the guardians.

On the basis of above information, it could be commented that the teachers of Government schools know the importance of using Student Diary, but for some reasons they are not used to use it for some reasons like high student-teacher ratio, overloaded sessions and other official activities. As an alternative of student diary, they write the homework and other information on the blackboard and the learners copy it on their exercise books.

Student Diary (SD) works as a bridge between the teachers and the guardians. By reading the student-diary the guardians also can get the information properly and help their children in their studies. That is why it is an important factor of students' achievement. A study by Pham et al. (2018) also found that student diary was positively associated with academic performance. The authors concluded that student diary could be a valuable tool in improving academic performance. In our present study, the HTs and STs of GPS also stated that SD was an important influencing factor for the students' academic performance, because the guardians are informed about homework and other information through it. So they can help their children in their studies including homework to communicate with the guardians. This study also disclosed the GPS teachers do not use SD directly, for some reasons like very high student-teacher ratio, overloaded sessions, short session lengths. In this situation they use an alternative way; that is they write information on the blackboard and the students copy it on their exercise books (Note Khata), but on the other hand SD is regularly used in all the KG schools.

In a study by Ghannadi et al. (2017), it was found that student diary was associated with increased student engagement, more positive attitudes towards learning, and higher levels of academic achievement. Research has found that a student diary can be very beneficial in helping students to remain focused on academic tasks and goals, leading to better academic performance. In this current study in GPS and KG in both types of schools interviewed STs disclosed that SD influenced on students' good performance. They opined that SD can convey the information to their guardians. Otherwise sometimes they cannot inform their guardians about their homework and other necessary information.

1.3 Student Regular Attendance

School attendance is the daily or regular learner participation in school activities (Gottfried, 2010). Through regular school attendance, learners get to access consistent educational support for their academic attainment (Oghuvbu, 2010). When learners attain academically, Honneth (1995) observes that they recognize their identities and intersubjective awareness of their social and

individual capabilities. However, Epstein and Sheldon (2002) assert that regular school attendance is a commitment to classroom time and activities right from enrolment to the finalization of a full academic programme. In this study, it is also found that regular attendance is one of the factors in achieving learning outcomes and performing good results. It is also revealed that good-performing school students' attendance is better than that of low-performance schools. An HT (GHT1) said, *"Students' irregular attendance breaks their learning continuity. So that irregular students in the school become backward students and can't perform well"*. Interviewed Teachers also mentioned that the students can achieve learning outcomes and can perform good results who are regular in school. An HT (GHT2) of good performing school said, *"Obviously regular attendance in school is essential for performing good results. Most of the students in our school are regular."* As a result, the achievement score of high performing school(GS20 and GS 14) is higher than that of other schools.

Similarly. In this study, the researcher found that students of good-performing kindergarten school attendance is better than the of low-performance schools. KHT1 said, *"In our school, Students' attendance is very good and which impacted on their academic result."* This statement also observed during observations and in the achievement test scores of high performing kindergarten school (KG6 and KG10).

In contrast, the head teacher of low scorer Kindergarten schools (KG18 and KH12) KHT3 and KHT4 mentioned that many students in their school are irregular and students can't maintain learning continuity and can't achieve learning outcomes due to their irregular attendance in school. So that they can't perform good results.

2. Teaching-Learning-related Factors

2.1 Applying Training Knowledge

In-service teacher training can be defined as a series of activities, arranged to engage teachers to enhance their knowledge, raise their skills, and broaden their professional approaches (Koellner & Greenblatt, 2018). Omar (2014) also claims that in-service teacher training has significant importance for teachers' classroom performance. In this study, it is found that the various types of training programs offered to government primary school teachers of Bangladesh, including subject-based training, ICT in education, inclusive education, leadership, academic supervision, competency-based test item development, SLIP, UPEP, and pre-primary education, etc. The head teachers of the high scorer GPS opined that, *"there is no alternative to training and it plays a very effective role in the good results of the students."*

According to teacher (GMT1) from high scorer GPS, *"He apply his training knowledge by developing lesson plans, using teaching materials, and employing effective mathematics teaching methods and techniques. Thus, it plays a significant role in achieving positive results for the students."* Similarly, a Bangla teacher (GTB1) mentioned the benefits of receiving training in Bangla, stating,

"Through Bangla training, he able to conduct more efficient Bangla classes. For example, he utilize presentation techniques such as letter cards or word cards when teaching new words. he strive to ensure active student participation through individual work, pair work, and group work. He use the board to engage students actively during lessons. Assessing Bangla learning, particularly during lesson assessments, and emphasizing proper pronunciation, punctuation, and letter presentation are important techniques that contribute to students' good results in Bangla."

In this study, it is also evident in the achievement test scores. Training knowledge of the teachers influence visible schools (GS20 and GS14) got high scores on achievement tests; on the other hand, low scorer schools of GPS (GS16 and GS 12) on achievement tests where training knowledge. These responses indicate a positive impact of teacher training on student achievement in the classroom. Training enhances the effectiveness of novice teachers. In addition, experience was also found to have a positive effect.

However, when the researcher interviewed teachers from low-performing schools, they expressed difficulties in applying the training techniques due to factors such as back-to-back classes and additional workloads. A Mathematics teacher (GMT3) mentioned, *"He received only six days of subject-based training in mathematics and having difficulty recalling the training knowledge."* A Bangla class teacher (GTB3) from a low-performing school mentioned the challenges of applying the learned techniques due to extra classes and other workloads, leading to a lack of following strategies such as lesson planning, utilization of teaching materials, and continuous assessment.

Another teacher (GTB4) from a low-performing school stated that they had not received any subject-based training in Bangla. *"He did not received any subject based training in Bangla."*

These accounts suggest that the lack of implementation of training skills and techniques may contribute to unsatisfactory student results. Head teacher (KHT1) of the high scorer Kindergarten school mentioned that *"Subject wise training is arranged every 6 months from Kindergarten Association. Teachers are taught different techniques for teaching. Teacher ensure the active participation of the students in different activities. Parenting skills are taught in parents' meetings. They act accordingly. As a result, the students' results are better."*

According to KTB1 from high scorer Kindergarten school said,

"He allow students to create new words, and make teaching easy teaching techniques for every chapter. He makes understand the students by explaining the new lesson with practical examples. Take exam every month. Teaching weak students with extra care, adoption of easy approach for weaker students, makes parents aware, encouraging the students to regular school attendance."

It is also reflected in the performance of the school (KG6 and KG10). KHT3 and KHT4 of low scorer Kindergarten school opined that there are no ample scope for teacher training for Kindergarten school teacher. According to KHT3,

“There is no training system for kindergarten school teacher either government or private. However, the Kindergarten Association has recently started training for teachers. It is day long training. However, in their school, each week one day is allocated for teachers to discuss about the lesson problems”

KTB3, KTM3 opined similarly that they usually did not have any training. That’s why they teach in their own way. For example, KTB3 said, *“We have no enough training. But BRAC gave a day long training. However, in the weekly meeting of the school, students and teachers discuss about their studies. I think the results of the students are better due to this effect.”*

Thus, applying the training knowledge will be a an influential factor for students’ academic achievement.

2.2 Teaching-learning Strategies

The classroom environment and the teaching and learning activities employed by teachers have a profound impact on student achievement. Effective instructional strategies and engaging learning activities can enhance student motivation, participation, and ultimately, academic success. Research has shown that active learning strategies positively influence student achievement. Active learning involves students' active participation in the learning process through activities such as group discussions, hands-on experiments, problem-solving tasks, and project-based learning. Differentiated instruction, which involves tailoring teaching methods and learning activities to meet the diverse needs of students, is another approach that positively influences student achievement. Tomlinson (2000) emphasized the importance of adapting instruction based on students' readiness, interests, and learning profiles. By providing appropriate learning activities, teachers can engage and challenge students at their individual levels, leading to increased achievement.

In this study, ATs from high scorer GPS also stated that they use different activities in the class for students’ readiness which enhance students’ learning. The activities are *greetings with the students, take personal inquiries of students, create conducive learning environment and check prior knowledge. Then show the related teaching aids and write the lesson title on the board and ask questions in the light of the learning outcomes and let the students think alone, discuss in pairs and involve the students in different activities and which enhance the students achievement.* A Mathematics teacher (GMT1) said, *"I conduct additional classes and employ instructional materials that facilitate student learning, making the subject more accessible and comprehensible."*

In contrast, a teacher from a low-performing school stated, *"No specific activities are implemented to enhance students' mathematical skills."*

Teachers in schools with good results emphasized the importance of checking student understanding after giving instructions. On the other hand, teachers in schools with poor results do not follow this practice. A Mathematics teacher (GMT1) highlighted the significance of providing clear instructions when assigning math problems. He said, *"I try to give clear instructions when presenting math problems, ensuring that students understand the given instructions. Moreover, I actively verify their comprehension of the instructions."*

Cooperative learning activities, where students work collaboratively in groups, have also been found to significantly impact student achievement. Johnson, Johnson, and Smith (2014) conducted a meta-analysis and concluded that cooperative learning activities foster positive interdependence, individual accountability, and the development of social skills, resulting in improved academic performance. In this study, ATs of high scorer school provided group works and provide problem solving activities. They also check after giving instructions to students before conducting the group work or to solve the problem. On the other hand, ATs from low scorer GPS do not. In this study, it is also evident in the achievement test scores.

Different teaching strategies applied by the teacher influences visible schools (GS20 and GS14) got high scores on achievement tests. In contrary, low scorer schools of GPS (GS16 and GS12) on achievement tests where different teaching strategies is not visible in the class room.

Therefore, the teaching strategies of the schools has influenced students' academic performances in the GPS. During interviews, a Bangla teacher from high scorer Kindergarten school (KBT1) shared his classroom practices, stating, *"He ensure daily reading and writing assignment from each student, give homework to students, give students to read Bangla readings, make questions from the assign reading text."* Another Bangla teacher (KBT2) said,

"He opens the Bangla book and tell the content, if he have time, he read the text. Let the weak students to read, gradually let everyone to read on different days. he Write the spellings and intentionally write the wrong spellings and ask the children to write the correct spellings. The he shows and write hyphens, make words, make sentences. Sometimes he creates sentences, sometimes the students create sentences. he finishes the daily lessons in the class every day. he also gives homework."

When researcher interviewed the Math teacher a mathematics teacher (KTM1) said he give homework, explain the class work or assign activities, arrange the inattentive child in front, divide the students into groups and assign group work, and evaluate the lesson everyday.

KTM2 said, “He finish the daily lessons in the class every day. and he give homework daily and provide feedback.” The reflection of this variety of teaching strategies in the classroom activities was found during observations and in the achievement test scores.

In contrast, a teacher (KTM3) from a low-performing Kindergarten school (KG18 and KG12) stated that

“Absence of students is a problem; Good students stay in his school up to grade3 and then admission into government primary school from class3. As a result, good students leave the school. He cannot use teaching aids and have no training. No specific activities are implemented to enhance students' mathematical skills.”

When the researcher observed the class of a low scorer Kindergarten school, it was discovered that there was no preparation of KTM3. Teacher lacks adequate preparation for teaching. Since there is no lesson plan, preparation, presentation and assessment phase work were not done properly. No strategy was used. Only 1 subtraction problem was solved and the rest time was completed by checking it only. Another subtraction is given at the end.”

Overall, the findings suggest that clear instructions, conducting extra classes, using appropriate materials, and providing individualized attention contribute to positive student outcomes in high-performing schools. However, low-performing schools may lack these specific activities and practices, which may affect student performance

2.3 Teacher Preparation

Effective teaching requires careful planning and preparation by educators, with research indicating that teachers' regular preparation has a significant impact on student achievement. Teacher preparation encompasses a range of activities, including lesson planning, content knowledge acquisition, pedagogical skill development, and staying updated with current educational practices.

Numerous studies have investigated the relationship between teachers' preparation and student achievement. Darling-Hammond (2017) conducted a comprehensive review and found that teachers who engage in regular preparation and professional development demonstrate higher instructional effectiveness and produce better student outcomes. This highlights the importance of ongoing preparation as a key factor in promoting student achievement.

In this study, the ATs from high scorer GPS also stated that the pre-lesson preparation is very important for any subjects for students' academic achievement. It is also important for deliver the lesson successfully. Lesson preparation is also important for checking the prior knowledge, creating safe and non-threatening environment, and participatory learning is an important determinant of good result of the student. In this regard, a teacher of Mathematics (GMT2) from

high scorer GPS said, *“Lessons are better if I go to class with prior preparation. Student achievement is ensured.”*

One aspect of teachers' regular preparation is lesson planning. Effective lesson planning involves identifying learning objectives, selecting appropriate instructional strategies, and aligning activities with curriculum standards. A study by Borko, Stecher, and Kuffner (2007) found that teachers who engage in systematic lesson planning have a positive impact on student achievement, as it allows for coherent and purposeful instruction.

In this study, the researcher observed the class of a high scorer GPS and discovered that the preparation of a Bangla teacher (GTB1) and Math teacher (GTM1) was pretty good. The teacher had a handwritten lesson plan and teaching aids.

In contrast, the teacher of the low scorer school, GTB3 did not take any preparation. The teacher read and asked the students to read with him at the same time. Some students were reading. The rest were not reading. But during the interview same teacher said, *“If the teacher does not create a safe environment in the classroom, and does not check prior knowledge, etc., the learning achievement of the students is disrupted, and as a result student’ achievement will be poor.”*

In this study, it is also evident in the achievement test score. Teachers’ lesson preparation influences on the students’ achievement. GS20 and GS 14 got high scores on achievement tests; on the other hand, GS16 and GS12 achievement are low. Therefore, teachers’ lesson preparation has influenced the students’ academic performance in the GPS.

ATs (KTB1, KTB2, KTM1, KTM2) from high scorer kindergarten schools (KG6 and KG10) opined that pre-lesson preparation is important for students’ academic achievement. But during the interview, KTB1, KTB2, KTB3, KTB4, KTM1, KTM2, KTM3 commonly said that they usually do not prepare any written lesson plan or preparation. But they write down the topic of what will be taught tomorrow in the diary. As such, bring unwritten preparation.

In contrast, it is also evident from the lesson observation and in the achievement test scores that there was no preparation of KTB3, KTB4, KTM3. They have no written lesson plan, teaching aids, or they do not have teachers’ guide. A Bangla teacher KTB 4 is just lecturing directly from the book. No materials or any kind of teaching aids brought to the class room. In the class of KTM3, teacher have no preparation as such. No lesson plans, or teacher's guide. So, he did not follow any structured method of teaching.

Therefore, teachers’ lesson preparation has influenced the students’ academic performance in the KG schools.

2.4 Teacher Instruction

School systems throughout the world acknowledge that the quality of teaching is the most critical in-school factor impacting on student outcomes (Darling-Hammond, 2000, Hattie, 2008) Teachers’ instruction is a very important component of teaching-learning for quality education.

Many studies have described aspects of teaching practice which are related to effective classroom learning and student outcomes (Brophy and Good, 1986; Wang, Haertel and Walberg, 1993). *Close monitoring, adequate pacing and classroom management as well as clarity of presentation, well-structured lessons and informative and encouraging feedback – known as key aspects of “direct instruction” – have generally been shown to have a positive impact on student achievement.* In the present study it is clear that all the GPS teachers (high or low scoring schools) can understand the importance of teacher instructions, however in practice, the low scorer school teachers could not perform it like the high scorer GPS teachers. During lesson observation in high scorer GPS, it was found that with a little exception, in the both lessons Bangla and English the teachers’ instruction was clear and quite understandable, and it was a little bit better than the low scoring schools. In this respect an observer (GLOB2) mentioned, *“Teacher’s instruction to the learners was clear and understandable. After giving instruction, she asked relevant questions to the learners and on the basis of the learners’ answers she repeated her instruction and made it clear to her learners.”* During interview, a subject teacher (GTM1) also stated, *“I give clear instructions to the learners in all of my lessons and take feedback from them. If needed I repeat my instructions as they can understand it clearly.”*

On the other hand, there is no training system for teacher development in KG schools like GPS, and due to lack of training knowledge and skills the teachers of the KG schools cannot deliver the lessons according to pedagogical instructions; rather they deliver the lesson in their own style as they consider suitable for the learners. A teacher (KHT3) commented, *“There is no training system for kindergarten school teacher However, the Kindergarten Association has recently started training for teachers. It is day long training. However, 1 day in a week teachers discuss about the lesson problems”* Similarly KTB1, KTB2, KTB3, KTM1, KTM2, KTM3 disclosed that they usually did not have any training, however they believe that *‘Training help the teachers how to apply the different techniques in the class. Trained teachers are able to conduct sessions effectively.’*

2.5 Teaching Aids

Teaching aids have demonstrated significant benefits in mathematics instruction, particularly in developing numeracy skills. Manipulatives, number charts, and visual representations aid students in comprehending mathematical concepts and operations (Cai et al., 2019). The use of teaching aids in mathematics promotes problem-solving abilities and fosters a deeper understanding of mathematical principles (Wong & Evans, 2019). Research consistently highlights the positive impact of teaching aids on students; mathematical achievement teaching aids have been found to increase student engagement and motivation. Visual aids, such as charts and diagrams, capture students’ attention and make abstract concepts more concrete (Saracaloğlu & Karamete, 2016). Tactile aids, such as manipulatives, encourage hands-on learning and active participation,

leading to improved motivation and comprehension (Moyer-Packenham et al., 2018). When students are engaged and motivated, their academic achievement tends to be positively impacted. In this study, during the interview, the teachers (GTM1, GMT 2) of high scorer schools also said that they use different kinds of concrete and semi-concrete teaching aids considering contents. They also mentioned that teaching aids are very important for making the mathematical concept easily understandable for the students which is very relevant to other research findings. A teacher (GTM1) said, “I use different kinds of concrete objects like sticks, seeds, leaves, marble, pieces of paper, etc. and semi-concrete objects like pictures, and charts considering the content of mathematics.”

Teaching aids contribute to the development of language and literacy skills. Visual aids, such as flashcards and word cards, assist in vocabulary acquisition and language development (Morgan & Carrillo, 2018). Multimedia aids, such as educational videos and interactive software, enhance students; listening and speaking abilities (Wang & Chu, 2020). Studies have reported positive correlations between the use of teaching aids and improved language and literacy skills (Bouchamma, 2017). But during the observation, researcher observe that a low scorer school teacher (GTB3) is lacking of practicing teaching aids in their lessons, and they are also lacking of sufficient skills of using teaching aids, which is disclosed in the comment of a Bangla lesson observer. The observer said, *“The teacher did not use any teaching aids other than the chalkboard. At the last portion of the lesson, the teacher used word card, which I could not find out any logic”*.

Similarly, a Mathematics lesson observer (GLOM3), explored, *“The teacher did not use any teaching aids other than the chalkboard”*. When the researcher asked the teachers of low scorer schools about what kinds of teaching aids they use in mathematics, it was found from their (GTM3, GMT4) answers that they used concrete aids like sticks, leaves, seeds and seeds and semi-concrete aids like pictures, charts. A teacher (GMT4) of low scorer school said, “I use sticks, seeds, leaves and pictures from textbooks, etc. to teach mathematics. Mainly I use mathematics textbook”.

On the other hand, it was found from high scorer KGs teachers (KHT1, KTM1, KMT2) interview that they use different kinds of concrete and semi-concrete teaching aids considering contents like scale, pencils. Sticks, seeds, geometry box, pictures of textbook, charts, etc., but it was found from lesson observation (KMT4) that geometry box, sticks and scale only in mathematics lessons. On the contrary, Mathematic teachers of the low scorer schools stated that they use different kinds of teaching aids, but from the lesson observation it was found that they use only the blackboard to teach mathematics (LOKM3, LOKM4).

The high scorer Bangla teachers of KG schools mentioned that they (KHT1, KTB1, KBT 2) use only textbook to teach Bangla. It was also proved from lesson observation that they only used the textbook to teach Bangla (LOKB1, LOKB2). Instead of this, the low scorer Bangla teachers stated that they use textbook, board, marker scale, etc. to teach Bangla, and it was proved from the lesson observation. However, both category of teachers ((KHT1, KHT2, KTM1, KMT2) are agreed that

teaching aids are very important for making the mathematical concept easily understandable for the students.

From the above information it is evident that both category of KG school teachers (high and low scorer) are known about the importance of teaching aids for effective teaching, but in practice they hardly use some common teaching aids.

2.6 Home Work

Homework is generally defined as tasks assigned to students to be completed outside of regular class time. Proponents argue that homework promotes practice, consolidation of learning, and independent study habits, leading to improved academic performance. Opponents, on the other hand, raise concerns about excessive workload, lack of engagement, and potential negative effects on students' well-being.

Several studies have explored the relationship between homework and student achievement. Cooper, Robinson, and Patall (2006) conducted a meta-analysis of research on homework and found a positive correlation between homework completion and academic achievement. They suggested that homework, when appropriately designed and implemented, can contribute to improved student learning outcomes. Furthermore, the quality and relevance of homework tasks are crucial. Homework that aligns with learning objectives, offers meaningful practice, and provides timely feedback tends to have a more positive impact (Epstein & Van Voorhis, 2001).

In this study, the ATs also stated that they regularly assign homework, collect it daily and provide feedback which enhance the student's better results. According to GTB1, *"I assign homework, collect it daily, and provide feedback. This approach facilitates easy and engaging learning, ultimately enhancing students' skills"* Similarly, another AT(GMT1) from the high scorer school also shared his view point, saying, *"I assign homework for each lesson and provide feedback upon its completion. By practicing school lessons at home, students find learning easier and the knowledge becomes more permanent. As a result, their performance improves."*

However, the impact of homework on student achievement is influenced by various factors. For instance, the amount and type of homework assigned can play a role. Some studies have found that a moderate amount of homework is associated with better academic performance, while excessive amounts may lead to diminishing returns (Trautwein et al., 2006). Additionally, the effectiveness of homework can vary across different grade levels and subjects. For younger students, homework may focus more on developing study habits and parental involvement, while for older students, it can involve more complex tasks and independent problem-solving (Cooper, 2010). Moreover, individual student characteristics and circumstances need to be considered. Factors such as student motivation, self-regulation skills, and access to resources at home can mediate the relationship between homework and achievement (Xu, 2010).

The current findings of this study, the ATs, revealed the same notion. They said that they regularly give homework, collect it daily and provide feedback. But lack of support at home leads to incomplete home work and due to this reason, many students frequently miss classes due to the pressure of unfinished homework which contributes to students' unsatisfactory results.

According to a Bangla class teacher from low performing school (GTB3) and GMT3 stated,

"While students are given homework, many of them come from uneducated or disadvantaged backgrounds and do not receive assistance at home, resulting in incomplete assignments. In my opinion, the absence of completed homework is also a contributing factor to students' unsatisfactory performance."

On the other hand, from the information collected from KG schools it is revealed that home work plays a significant influence on students' academic achievement. During the interview, all the teachers (KTB1, KTB2, KTB3, KTB4, KTM1, KTM2, KTM3) said that they regularly give homework, collect it regularly and provide feedback. A teacher from high scorer Kindergarten school (KTB2) said, *"I give homework and collect it regularly and provide feedback. If homework is given, the reading of the class is sustained by re-reading it at home."* Finally it could be commented that the both types of schools GPS and KG schools' teachers are aware about the importance of homework and they practice it regularly.

2.7 Motivational Expression

Teachers play a vital role in students' academic achievement, and their motivation in the classroom can significantly influence student outcomes. When teachers are motivated, enthusiastic, and passionate about their profession, it creates a positive learning environment that fosters student engagement and enhances academic performance.

Research has shown that teachers' motivation positively affects student achievement. Niven, et al. (2012) conducted a meta-analysis and found a strong correlation between teachers' motivation and student outcomes. Teachers who demonstrate high levels of motivation exhibit behaviors such as setting high expectations, providing constructive feedback, and encouraging student autonomy, which contribute to increased student achievement. In this study, the ATs also stated that they also acknowledged the motivation. They motivate and inspires the students and they also encourage and behave friendly with the students which positively influences the students' academic performances. According to GBT1 *"I always motivate my students in the classroom. It inspires them, instils confidence, and helps them grow interest in learning. Even I called them by name and became their friend."* Similarly, another Mathematics teacher (GMT²) said, *"I praise, encourage, inspire, award and create friendly behaviour, which positively influences the result."*

The impact of teachers' motivation on student achievement is also mediated by students' perceptions and attitudes. Students are highly sensitive to their teachers' enthusiasm and dedication, and these factors can influence their own motivation and academic engagement. A

study by Rimm-Kaufman, Storm, Sawyer, Pianta, and La Paro (2006) demonstrated that teachers' motivation and positive emotional support were associated with higher levels of student motivation, which, in turn, predicted better academic outcomes. In this study, GTB³ stated that *"I occasionally praised and inspired the students during the lesson to motivate them."* As a result, the achievement score ofis the lower one. The researcher observation found the same result in the low scorer schools that encouraging phrases were used very few during the lesson of the low scorer schools.

In this study, it is also evident in the achievement tests score. Teachers' motivation for students influences visible schools (GS12, GS14) got high scores on achievement tests; on the other hand, low scorer school (GS13 and GS17) on achievement tests where teachers motivation is not visible. Therefore, the teachers' motivation has played a important role on students' academic achievement.

On the other hand, from the interviewing the kindergarten school teacher, it was revealed that motivation is an influencing factors for students academic performances. During the interview, KTB1, KTM1, KMT2 and KTB2 said that they motivate and inspires the students and they also encourage and behave friendly with the students which positively influences the students academic performances. In this regard, a teacher of Bangla (KTB¹) from high scoring Kindergarten school said, *"I praise, encourage the students and call students by their name. Students like it and it makes them interested in reading, students are motivated and it help the academic results of the students"* During lesson observation in KG schools the class of a high scorer school, it was discovered that KTB¹ KTB2, KTB3, KTB4, KTM1, KTM2, KTM4 employed motivational words in his lesson. Teachers know all students' names and behaves friendly.

2.8 Assessment

Derek Rowntree stated that "if we wish to discover the truth about an educational system, we must first look to its assessment procedures" (Rowntree, 1987, p.1). Derek Rowntree [5] has defined, assessment is about getting to know our students and the quality of their learning. Quality of assessment is one of the key features of good teaching. Setting appropriate assessment tasks should question students in a way that demands evidence of understanding. It is also important to use a variety of techniques for discovering what students have learned. In this study, The researcher observed the low scorer schools (GS16, GS12) and found that teachers had the initiative to assess students but some of the students didn't involve in the assessment process due to their irregularity. One of the teachers (GS12) mentioned, *"Sometimes I assess students learning but I couldn't evaluate every student's and provide the necessary support for ensuring their learning"*. A similar notion was from another AT. He (GMT3) said, *"I think HTL influences the overall performance of the students. Our HT is not thinking about students' assessment or taking remedial measures for the weak students."* It also found that the good-performing school's teachers regularly assess students learning and provide necessary feedback. A teacher of a good-performing school said, *"I regularly assess every student of my class and ensure their learning. Sometimes I take the exam after completing a chapter"*. GHT1 said, "In our school, we conduct summative and formative

assessments. We assess students by oral, written, and practical work. We assess every student and take necessary initiative for slow learners”.

On the other hand, interviewed teachers of KG schools (KHT1, KHT2, KTM1, and KTB3) described that teachers assess students learning through class tests, weekly tests, monthly tests, model tests, terminal tests and early tests. Besides these, they conduct different other tests like group tests, uniform and discipline tests, attendance tests, etc. A teacher (KHT1) said, *“We assess our students through different types of tests like class tests, weekly tests, monthly tests, model tests, terminal tests and early tests. We prepared report cards for every student and deliver these to guardians”*. Teachers (KHT2, KTM1, KTM2, KTM4, and KTB4) also mentioned that after every lesson they assess students’ learning through oral and written tests and give necessary feedback to the slow learners.

So, in both types of schools’ teachers are aware about the importance of ‘Assessment’ and they practice both types of assessment formative and summative in their school.

2.9 Feedback and Remedial Measure

Feedback plays a crucial role in student learning and academic achievement. Hattie and Timperley (2007) emphasize the importance of providing effective feedback that is timely, specific, and actionable. They argue that feedback should focus on the task, process, and self-regulation of learning, and should guide students towards improvement. Research has shown that feedback that is aligned with learning goals and targets areas of misconception or error can significantly enhance student achievement (Kluger & DeNisi, 1996) In current study, the ATs also emphasized the importance of feedback and remedial measures in ensuring learning for all students. They also mentioned providing feedback and direct help to slow learners, as well as utilizing advanced learners to assist them. They also stated that these measures help ensure mastery learning for all students. According to (GBT¹) from high performing school *“During conducting lesson I find out the slow learners, go to them and provide feedback to them. Sometimes I help them directly, and some other times I use the advance learners to help the slow learners. Thus I can ensure mastery learning for all my students. I always motivate my students in the classroom. So feedback and remedial measures are very important in ensuring learning for all the learners.”*

A study by Gersten, Chard, and Baker (2000) found that targeted and intensive remediation programs can lead to significant improvements in student achievement, particularly for students at risk of falling behind. In the present study, GMT1, a Mathematics teacher, mentioned organizing special classes for weak students and providing personal attention. GMT2 also emphasized individualized intensive support for backward students, using simple explanations, examples, and analogies based on real-life situations. The combination of feedback and remedial measures has shown promising results in enhancing student achievement. Bangert-Drowns, Kulik, and Kulik

(1991) conducted a meta-analysis and found that the provision of feedback, along with additional instructional support or remediation, produced substantial positive effects on student achievement. The authors highlight the importance of tailoring feedback and remediation to individual student needs, ensuring that they address specific areas of difficulty or misunderstanding.

During the researcher's observation of a high-scoring school, it was evident that both GBT1 and GBT2 consistently provided feedback and implemented remedial measures throughout their lessons. GBT1 tailored feedback to each student's proficiency level and actively took remedial steps to support struggling students. Furthermore, GBT1 facilitated interactions between students of varying abilities, allowing advanced students to assist their peers who were falling behind.

However, in contrast, the observation of a low-scoring school revealed a different picture. The teachers in this school did not provide feedback based on individual proficiency levels. Instead, they merely marked tick marks in the notebooks without addressing students' specific needs, even when they were unable to write properly. Additionally, the teachers did not seem to identify students who were falling behind or take proactive measures to address the issue. Consequently, many students failed to achieve the desired learning outcomes due to the lack of proactive measures from the teachers.

On the other hand, while interviewing the ATs of Kindergarten school (KTM1, KTM2, KTM3, KTM4, KTB1, KTB2, KTB3) they said that feedback and remedial measures help the students able to understand, students are interested in studies, attends classes regularly and help the students to achieve good 'academic results. During the researcher's observation of a high-scoring kindergarten school, it was evident that both KTB1, KTB2, KTM1, KTM2 provided consistent feedback and remedial measures throughout their lessons. Although the both teachers from low performing school informed the researcher during interview that they use remedial measures and provide feedback to the students in the class. In contrast, the observation of a low-scoring school revealed a different picture. There was no remedial work for backward students. Because the teacher himself did everything.

Therefore, both feedback and remedial measures have a significant impact on student achievement. Effective feedback that targets areas of improvement and supports self-regulation, along with targeted remediation interventions, can lead to substantial gains in student learning outcomes. It is important for educators to utilize these strategies in a thoughtful and personalized manner, taking into consideration the unique needs of each student.

3. Support-related Factors

3.1 Parental Support

Parental support is very important for better achievement of the learners. It is not possible to fill-up the learning gaps of the learners, ensuring regular attendance and overall development of the students (physical, mental, social and spiritual) by the teachers only. In this regard, they need help from their parents. Research has established that parental involvement has a direct effect on the academic achievement of students, with guardians providing resources, guidance, support systems, and encouragement for improved student academic performance. A meta-analysis of 30 studies found that guardian involvement was positively related to students' academic achievement. A study by Chang (2004) found that parental support was directly related to academic achievement. Students with supportive parents were more likely to achieve high grades, while those with unsupportive parents were more likely to struggle academically. The present study team also wanted to know the teachers' opinions about the importance of parental support, and how much support they get from the parents. In this respect, they opined that parental support is very important factor in students' achievement. Both groups of teachers GPS and KG school teachers agreed that opined that parental support is very important for better performance of the learners, and they take this support in different ways. A headteacher of GPS (GHT1) stated,

“Parental support plays a very important role in the achievement of the learners, because when we face any problem with a learner like low performance, irregular attendance of the learner, and any other problems like this, immediately we contact to his/her parents for help and get a better performance from that student.” Similarly, A headteacher (KHT1) stated, *“Guardians support is very important in students' achievement. Subject teachers identify the weakness of the learners and inform to their parents as they can take necessary steps. Similarly, when the parents face any problems in their children's studies, they inform it to the teachers and the teachers take necessary steps to remove the problems.”*

Utomo and Tarno (2001) found that more involved parents had a positive effect on their children's academic achievement and that those who were not aware of their children's activities in school had a negative impact on their children's academic performance. In the present research, the subject teachers of both categories of schools (higher scorers and lower scorers in achievement tests) also opined that parental support was very much helpful in the academic performance of the learners. They also added that the parents support their children in different ways, like conforming regular attendance in school, helping in homework, communicating with school teachers if needed, maintaining health and hygiene, etc. In this regard, a Bangla subject teacher (GTB1) mentioned, *“The parents take care of their children, ensure regular attendance, identify the learning gaps, try to fill up the gaps and communicate with the teachers for necessary support. The student achievements increase.”*

Another study by Rusu (2013) found that parental involvement was an important factor in predicting student success. The study found that when parents actively monitored their children's academics and provided emotional, financial, and social support, students tended to have higher

grades than those with less involved guardians. In the present study, both GPS and KG school teachers were asked how they avail parental support. In response both groups of teachers informed that they contact the parents by mobile phone, sometimes parents come to schools, and during parents' gathering, they also share about the problems and needs of their children. Student diary is another effective medium of parental communication, which is mostly used in KG schools. A KHT1 stated,

"Guardians' support is very important in students' achievement. Subject teachers identify the weakness of the learners and inform their parents, so they can take necessary steps. Similarly, when the parents face any problems in their children's studies, they inform the teachers and the teachers take necessary steps to remove the problems."

A subject teacher (KTB1) stated,

"If needed the guardians contact us by mobile phone, sometimes they come to school, when we meet any of them on the way, and they join in the monthly parents' meeting, which is held once in a month. Sometimes we contact them over a mobile phone. It helps to solve the problems"

3.2 Teacher Extra Support

Teachers' extra support plays an important role in creating an environment that supports effective teaching and learning in the classrooms and ensures students' mastery of learning. Teacher support refers to students' beliefs that their teachers care about them, value them, and establish personal relationships with them (e.g., Fraser & Fisher, 1982). According to Nguyen and Ahmadi (2019), students who received extra support and guidance from their teachers had significantly higher test scores compared to those that did not receive extra help. The teachers who provided extra support to students had positive outcomes such as improved academic achievement (Uzunovic et al. 2017). In this research, the researchers found that in better-performing schools the teachers are aware enough of the demand of the slow learners. They arrange extra classes and other remedial measures for them if needed. On the other hand, low-performing schools do not give importance to this issue and usually, they do not conduct extra classes or any other remedial measures for the slow learners. A teacher from a high scorer school said, *"I identify slow learners and conduct extra classes using teaching aids. Sometimes I use advanced learners to provide support to slow learners"*. A teacher (GTM3) from low scorer school said, *"Generally I don't take any attempts for the students besides the regular lessons"*. The researcher also found from a lesson observation (LOM2) on subtraction with carry that teacher provides extra support to the students who are slow learners.

It is also found that the teachers with better-performing KGs sometimes arrange extra sessions and some other remedial measures. In this aspect a subject teacher (KTM1) expressed, *"I arrange special sessions for the slow learners in the afternoon, use extra books with the NCTB books, use*

teaching-learning materials which I get around me and use role play to give clear ideas to the learners”.

On the other hand, low-performing schools do not give importance to this issue, and usually, the do not conduct extra classes. An assistant teacher quoted, *“I do not conduct any extra sessions, but I arrange debating competitions and give them writings like essay writing”* (KTB3)

3.3 Food Support

A number of studies that examined the relationship between food support and academic success. A majority of the studies found significant positive associations between food support and academic success. An adequate and sufficient healthy intake of food is essential to brain function (Bloom, 2009; Dauncey, 2009; Kazal, 2002; Shariff, Bond, & Johnson, 2000). Moreover, maximizing brain function is a prime factor in seizing appropriate cognitive capability – for example, the ability to focus, comprehension, evaluation, and application – in learning (Kretchmer, Beard, Carlson, 1996; Schmitt, 2010). In this research, the researcher found that most students in good-performing schools have mid-day meals and can give their full attention to the lessons. The students of their school perform good results. An HT (GHT2) from the good performed school said, *“Most of the students of our school bring their mid-day meal, and some of them back to their home for mid-day meals whose house is very near to the school. Mid-day meals fulfill students’ food demands and they feel lively. So that they can give their full attention in the classroom. They achieved learning outcomes and performed good results”.*

On the other hand, some students of low-performing schools do not bring their mid-day meals and were not attentive to the lessons, especially those conducted in the afternoon. So some of the students couldn’t achieve the learning outcomes and performed good results. A teacher for the low-scoring school said, *“Some of the students in our school didn’t bring their mid-day meals and can’t attend the lessons which are taking place in the afternoon”.*

Regarding mid-day meals, most of the interviewed teachers (KHT1, KHT2, KHT3, KTB1, KTB2, KTB3, KTM1, KTM4) including teachers with low-performance Kindergarten mentioned that their school end at 11:50 am. So that mid-day meal is not necessary for their students. They also mentioned that most of the students of their schools have taken their breakfast before coming to school and can give full attention in the classes. Whereas some of them (KHT4, KTB4) mentioned that sometimes some students had not eaten breakfast before coming to school and couldn’t pay attention in classes. It is also found from their answer that their school hour is from 8:30 to 11:50 am. So students of KGs are in not need to bring the mid-day meal.

A teacher (KHT2) said,

“Students of our school do not need mid-day meals. Because the school time is from 8:30 am to 11:50 am. Students get a tiffin break at 10:30 am. Most of the students of our school bring a tiffin. Sometimes some of the Guardians also bring tiffin and feed their children”.

3.4 Coaching or Tutor Support

Guryan et al. (2012) noted that private tutoring can significantly improve student performance, particularly among low-performing students. According to Hanushek et al. (2017), private tutoring can significantly impact student learning, particularly in subjects such as math and science. In this study, it is also found that students studying private tuition to get support for their learning don't get help from their parents, and private coaching is effective for those students who have a learning gap. Teachers GHT3, GTB3, and GTM3 said, "*Students who participate in private tuition, their result is comparatively better than others*"

However, some studies have also raised concerns about the potential negative effects of private. For example, a study by Kim and Lee (2016) found that excessive use of private tutoring can lead to higher levels of stress and anxiety among students, which can ultimately have a negative impact on their academic performance. In this study, it is also found that teachers who involve in private tuition have no training. In addition, lack of subject knowledge and pedagogical knowledge students sometimes receive inaccurate information from them. When students get the wrong information that impact negatively in their results. A teacher (GTB1) said, "*I think, private tuition is no need for students if a teacher teaches with proper methods and techniques in the classroom. Because most of the private tutors have no training. They don't have teaching methods and techniques*".

The teachers (KHT2, KTM2, KTM1, KTB2 & KTB4) of Kindergartens also mentioned, while interviewing, comparatively slow learners studying private tuition to get support in their learning. They also mentioned that around 50% of Kindergarten students study on private tuition, which is effective for performing good results. KHT1 said, "*I think private tuition is good for slow learners because they can minimize their learning gap. It is also good for advanced learners because they get extra support to make them more competent. So that students perform good results*".

On the other hand Teachers (KHT4, KTB2) mentioned that private tuition has no positive impact on students' results. Because the teachers who involve in private tuition have no training. Due to a lack of subject knowledge and pedagogical knowledge, students sometimes receive inaccurate information. When students get the wrong information that impact negatively in their results. A teacher (KHT4) said, "*I think, private tuition is no need for students if a teacher teaches with proper methods and techniques in the classroom. Because most of the private tutors have no training. They don't have teaching methods and techniques*".

4. Community related Factors

1. School Management Committee (SMC)

Every government primary school in Bangladesh is managed by an SMC that consists of 11 members from different backgrounds in the locality. The chairman is selected from among the members except for the headteacher and teacher representative of the concerned school (MoPME,2019). According to the guideline of the Directorate of Primary Education (DPE), the responsibilities of SMC are collecting and preserving local resources, following the school-level

improvement plan, ensuring inclusiveness in the school, monitoring pre-primary activities, constructing-reconstructing-renovating school building.

The role of the school management committee (SMC) in influencing students' academic achievement has been a topic of interest in educational research (Smith & Johnson). The SMC, also known as the school governing body or school board, typically consists of parents, community members, teachers, and school administrators who collaborate to make decisions regarding school policies, curriculum, and overall management. This literature review examines studies that explore the impact of SMCs on students' academic achievement and highlights key findings and implications. In this study, the HTs of high scorer school of GPS also stated that the role of SMC is a influencing factors for students academic performances. SMC plays a important role to run his school. They also motivate and inspires the parents as well as students which influences the students for good academic performances. A head teacher (GHT²) of high scorer GPS mentioned that,

“School Management Committee plays various roles in school management. Eg – Assisting with constructive feedback in organizing annual sports competitions in schools or celebrating various national days. As a result, decision-making becomes easier. Some also help with money. Moreover, the parents are made aware to ensure the admission of school going children at the time of admission. In this, as a social institution, good relations between the people of the society develop with the school and social involvement increases. As a result, the quality of education also increases”.

Similarly, low scorer HTs of GPS mentioned the importance of the role of SMCs for good academic performances of the students. But they are not actively involved in academic activities. It is also reflected in the achievement test score. GS20 and GS14 got high scores on achievement tests where SMC role is reflected. On the other hand, low scorer school of GPS (GS16 and GS12) the SMCs role is not so visible.

In the case of Kindergarten schools, although both low scorer and high scorer Kindergarten school head teacher mentioned the importance of SMC for the students 'academic performance. But during the interview, KHT1, KHT2, KHT3 said that formally there is no committee to run the kindergarten school in the name of SMC. It is just a private ownership institute. Instead there is director and he himself takes all the decisions here. Sometimes, he consults with the teachers. He attends school almost all the time.

While SMCs have the potential to positively influence academic achievement, it is important to consider various factors that can impact their effectiveness. The composition and diversity of the committee, the level of training and expertise of its members, and the extent of their involvement in decision-making processes play significant roles. Rodriguez et al. emphasized the importance of establishing clear roles and responsibilities, providing training opportunities, and fostering

effective communication channels within the SMC to maximize its potential impact on student achievement.

Therefore, it can be suggesting that an active and effective school management committee can play a crucial role in promoting students' academic achievement. Active involvement of parents, community members, teachers, and school administrators in decision-making processes and school governance is associated with improved student outcomes.

1.5 Teacher-Parent Communication

Teachers-Parents Communication is a very important factor in children's achievement. Many researches was done on the impacts teacher and parents communications and found out that it is a very important factor on student achievements. Kraft, M. A., & Dougherty, S. M. (2013) found out that frequent teacher-family communication immediately increased student engagement as measured by homework completion rates, on-task behavior, and class participation. On average, teacher-family communication increased the odds that students completed their homework by 40%, decreased instances in which teachers had to redirect students' attention to the task at hand by 25%, and increased class participation rates by 15%. Descriptive research (Connell & Wellborn, 1991) and anecdotal evidence (Mahler, 2011) suggest that the nature of relationships between teachers, students, and their parents play an important role in determining a child's level of engagement with school. In the present research, the high scorer in Achievement GPS headteachers and the subject teachers opined that parent's communication has a great influence on students' performance, especially to filling up learning gaps, to prepare the lesson at home and irregular attendance etc. A headteacher of high performing GPS (GHT1) commented, *"In our school, parent's communication is very much helpful for better result of the learners. Students do not face any problem in learning lessons at home, or irregular attendance, in that case we communicate with parents which help the students to overcome the learning problems"*.

A subject teacher GBT2 said, *"The parents take care about the progress of their children's studies and communicate with us if needed. Even when ever some guardians ask about their child when he see me in the road or in the Bazar(market). This type of communication is very much helpful for students' progress"*. As a result, the achievement score of GS20 is the highest one. The researchers' observation found the same result in the high scorer schools (GS20 and GS14).

In the present research the low scorer GPS HTs and STs are also aware about the guardians' support in students' performance, but according to them the reality is that for some reasons like unaware parents, want of device (Phone) etc they don't get necessary respond from the parents, and this is a barrier of student performance. In this study, a head teacher (GHT3) from low performing GPS comment is applicable here,

"Most of the guardians are unaware about their role and we are unable to get a minimum support from them. For this reason, it may affect the students performance in the achievement test"

((GHT3))". Therefore, the parental support influences the students academic performances. The achievement scores also support the teachers' statement (GS16 and GS12).

Chapman & Heward, 1982). Bittle's (1975) small-scale study used pre-recorded, automated phone calls to parents from teachers and found that the calls generated more parent-initiated contacts with teachers and improved student's spelling performance. Parents also play a central role in shaping their children's behavior and engagement in school. Earlier work has shown that involving parents in their children's schooling can improve students' academic achievement (Barnard, 2004; Seitsinger et al., 2008).

In this research the KHTs and the Students of high scorer Kindergarten schools are also aware that parents' communication enhance students' performance, especially to filling up learning gaps and to prepare the homework at home. The headteachers and the subject teachers of the high performing Kindergarten school added that the parents contact to them by mobile phone, through student diary, monthly parents meeting and sometimes they come to school to talk directly with the teachers.

A principal (KGHT1) commented, *"In our school we communicate with the parents through students' dairy. In the parent's comments section of the dairy, parents also write the children's' further support or needs."* This reflection was found during observations and achievement test scores. In contrast, the head teachers/principals of the low scorer Kindergarten schools ((KG18 and KG12) said that *"some of the parents are very busy with their family affair and jobs. Therefore, they do not attend the parents meeting. sometimes the parents come to school and talk to us about the problems and progress of their children in studies."* In the achievement score it also reflected. The students of those kindergarten schools not performed well.(KG18 and KG12). Therefore, teacher –parents communication is an influential factors of students' performances.

4.1 Parent Education

Probably the most prominent and direct explanation of the link between parents' education and their children's academic achievement relies on the assumption that parents learn something during schooling that influences the ways in which they interact with their children around learning activities in the home (Eccles, 1993; Brody et al., 1995; Coryn & Bradley, 2002; Hoff et al., 2002; Davis-Kean et al., 2003; Davis-Kean, 2005). Parents with more education both talk to and use more complex and varied language with, their children, which, in turn, predict better language and reading skills through our childhood (Hoff, 2003). Parents with more education also have higher expectations for their children's education, which, in turn, predict greater educational attainment for their children (Alexander et al., 1994). According to Furstenberg et al., 1999, Parents with higher education make sure their children are exposed to lots of educational opportunities in their communities. In this research, all interviewed teachers unanimously replied that educated parents

were very much conscious about their children, kept contact with the teachers, took care of their children, checked class work khata, revised lessons at home, and provided materials like khata, pencils, dresses, etc. One of the assistant teachers (GMT1) said, *“The parents who maintain regular communication with the teachers, their children do better results.”*

On the other hand, the low scorer school teachers opined that they are very much aware of the teachers-parents communication, but the reality is that for some reasons like unaware parents, want of device (Mobile phone), broken family child, etc they do not get a necessary response from the parents, and this is a barrier of student performance. A teacher’s comment is applicable here,

In this research, the researchers wanted to know the importance of parents’ education over the performance of the KG school learners and how much influence they have over their learners’ performance. In response to this, the principals (KGHT1, KGHT3 and KGHT4) opined that parental education is an important factor for children’s educational performance because the educated guardians are aware enough to understand the necessity and learning gaps of their children and can provide support to them. A principal (KGHT4) stated,

“I am telling from my experience (24 years) that at least SSC-passed parents can provide all necessary support to their children and they perform well. On the other hand, the parents who are not educated like this, are not aware enough to understand the needs and provide necessary support to their children, and as a result, they suffer in different problems including learning gaps.”

Subject teachers (Mathematics and Bangla) also opined that parents’ educational status effects on the academic performance of their children. They argued that educated guardians can read the student diary, help them in doing homework, and other necessary help. As a result, their children perform well. On the other hand, with some exceptions, illiterate or less educated parents can’t provide these kinds of supports and their children fall in learning gaps.

4.2 Parent Economic Status

Socioeconomic status reflects and is measured by the social and economic status of family members. People generally believe that there is a strong and stable correlation between SES and children’s academic achievement and cognitive development. However, the conclusions from studies are inconsistent (Bradley and Corwyn, 2002; Lareau, 2011). Many researchers have found that family background factors can explain most of the variance in students’ academic achievement and play a more important role than schools (Arnold and Doctoroff, 2003; Reardon, 2011; Berkowitz et al., 2017; Lawson and Farah, 2017). The positive correlation between SES and academic achievement persists from childhood to adolescence and is consistent across races (Mpofu and Van de Vijver, 2000; Wössmann, 2005; Aikens and Barbarin, 2008; Caro et al., 2009; Kieffer, 2012; Ren and Xin, 2013). However, some studies have shown that SES has little

to no relevance for academic achievement (Rech and Stevens, 1996; Seyfried, 1998; Ripple and Luthar, 2000).

In this research, it is found from the answer of the teachers (GHT1, GHT2, GTB1, GTB2) of well-performing schools that the parents who are economically strong can ensure their children's nutritious food, well dress, learning aids and can provide extra support through private tuition, etc. So that their children perform well. An HT (GHT 2) from high scorer school said, "The parents who are economically strong can ensure their children's nutritious food, well dress, learning aids and can expense necessary money for private tuition, etc. So that their children perform well. A teacher (GTB2) from a good-performing school said," Parents' strong economic condition impacts their children's education. Because economically strong parents can ensure nutritious food for their children, they can take care of their children's physical and mental health and provide extra support for their learning. So, their children perform well.

It also found from the answers of the teachers (GHT3, GTB4, GTM3, GMT4) of low-performing schools that the parents who are economically weak can't ensure their children's nutritious food, learning aids and can't provide extra support through private tuition, etc. So that their children can't perform well. An HT (GHT3) of a low-performing school said," Due to the parents 'economic condition they can't provide tiffin, learning aids, and ensure their children's extra other support. So their children can't perform well".

On the other hand, principals of the KG schools (KHT1, KHT2 and KHT4) opined that there is no relationship between parents' financial status and their children's performance, while all the subject teachers (Bangla) except one agreed to this opinion, however a teacher (KTB1) commented that money is needed to pay the private tutors. On the other hand a teacher (KTB3) strongly argued that parents' financial situation directly impact on the academic performance of their children. She also added that most of the students who achieve lower score is from financially weaker family.

4.3 Parent Awareness

Several studies have been conducted and published on the influence of guardian awareness on academic success. According to the Utomo and Tarno 2001, more involved parents had a positive effect on their children's academic achievement, and that those who were not aware of their children's activities in school had a negative impact on their children's academic performance. Parental support was directly related to academic achievement. Students with supportive parents were more likely to achieve high grades, while those with unsupportive parents were more likely to struggle academically (Chang, 2004). In 2008, Zhang explored the role of guardian awareness on academic success, finding that students who had parents or guardians who were knowledgeable about their academic progress were more likely to be successful in school. In this study, the researcher wanted to know whether parents' awareness of their children had any effect or not in performing well in achievement scores. It is found from the answer of the teachers (GHT1, GTB2, GTM1, GTM2) of well-performing schools that parents' awareness is very important for their children's good results. They also mentioned that aware parents are very careful to their children,

they spend a long time, ensure nutritious food, communicate with teachers to know the status of their children and take extra care for their learning. So their children perform good results. An HT (GHT2) said, *“Parents’ awareness is very important for their children’s good results. According to my experiences, I have seen that aware parents are very careful and spend a long time with their children, communicate with teachers to know the status of their children and take extra care for their learning. So their children grow in a disciplined way and perform with good results.*

It also found from the answers of the teachers (GHT3, GTB4, GTM3, GMT4) of low-performing schools that the unaware parents are not careful to their children’s education, they don’t spend time for their children. So their children don’t come to school regularly. They don’t study at home and can’t perform with good results”. A subject teacher from low scorer school said, “We inform the status of children’s performance and the learning gap to the parents. We request them to take the initiative for studying their children at home and send them to school regularly. But most of them don’t take any initiative for the learning of their children”.

On the other hand, the teachers of the better performed KG schools believe that educated and financially solvent guardians are more aware and they can their children’s problems and provide them comfortable residence, nutritious foods (balanced diet) and support in their studies directly, or by providing house tutors and coaching centers. They this as one of the secrets of their better performance. In this regard a subject teacher (KTM1) said,”

“All of our guardians are aware enough to understand their children’s needs, if needed they can communicate with the teachers, they can understand the information as they can read diary, they can create positive attitude among their children and can help their children to understand the contents. She also added all of our guardians are learned and we get any kinds of help from them if needed”.

It is also found from the answer of the low-performance KGs that guardians’ awareness is an important factor for students’ better performance. A teacher (KTB3) opined,

“Educated guardians are aware enough and their children perform better. I think guardians’ awareness has 100 percent influence on children’s better performance last year six students obtained scholarship from our school and the guardians of all of them were learned and aware. Sometimes the educated and aware guardians come to school and request to repeat some difficult or missed sessions”.

Summary of Major Findings

The following factors influence students’ achievement in GPS and KG:

School related Factors

- Headteacher Leadership
- Student Dairy
- Student Regular Attendance

Teaching-learning related Factors

- Teaching-learning strategies
- Teacher Preparation
- Teacher Clear Instruction
- Motivational Expression
- Feedback and Remedial Measure

Out of School Support

- Parental Support
- Food Support
- Teacher Extra Class Support
- Coaching or Tutor Support

Community related Factors

- School Management Committee
- Teacher-Parent Communication

6. Recommendations and Conclusion

The main purpose of this study was to determine factors influencing students' performance in Government Primary Schools and Kindergarten Schools in achievement test. These factors were categorized into four parts namely: school related factors, teaching-learning related factors, support related factors and community related factors which concentrated on students' academic performance.

The researcher recommends the following:

- Students' regular attendance needs to be ensured
- Headteacher should be more active in academic leadership
- Subject-based teaching-learning strategies should be used in the classrooms

- Teachers should be prepared with teaching aids and lesson-related activities
- Teachers' instructions in teaching-learning activities should be clear, concrete and audible
- Teachers should provide feedback after the assessment
- Cooperative relationships should be built between teachers and parents
- SMC should be involved effectively in academic activities
- Teachers should use motivational expressions during classroom teaching

Policy recommendations

- Leadership training should be given to Headteachers
- Monitoring and mentoring mechanism should be effective
- Subject and pedagogical training should be trained to Kindergarten Teachers
- A systematic administrative guideline should be developed for Kindergarten

Conclusion

There are some factors that influence the academic performance of the students' achievement. In this study, the researchers wanted to discover the factors that influenced the academic performance of government primary schools and Kindergartens. For this study, the researchers took achievement tests from both GPS and KGs to identify student numeracy and literacy skills for grade three students. According to the achievement tests results, the researchers identified the top two best scorer schools and low scorer schools. Then the researchers determined the responsible factors for both best and low scorer schools. Collected qualitative data from the top and low scorer schools and Kindergartens. The researchers coded all data according to their theme. The researchers identified some factors responsible which influence students performance such as headteacher leadership, student diary, student regular attendance, teacher preparation, parental support etc.

Several gaps were identified in this research which need to be meet up by further research which will include-

- Initiate further research for identifying how much influence of each factor.
- Do a comparative study for GPS and KG schools.
- Factors influence for girls prone to do better results

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