

TEACHERS' SELF-EFFICACY AND CLASSROOM MANAGEMENT
PRACTICES: A SURVEY OF SECONDARY LEVEL PUBLIC SCHOOL
TEACHERS OF KATHMANDU VALLEY, NEPAL

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AN ABSTRACT

of the thesis of *Dhurba Bahadur Shah* for the degree of *Doctor of Philosophy in Education* presented on February 10, 2023 entitled *Teachers' Self-Efficacy and Classroom Management Practices: A Survey of Secondary Level Public School Teachers of Kathmandu Valley, Nepal*

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Teachers' self-efficacy (TSE) contributes to improving the quality of education. Highly efficacious teachers tend to make greater efforts in managing a classroom. Despite regular training for public school teachers in Nepal, the effect has not been seen on students' academic learning and achievement. In this regard, a study of TSE and their classroom management practices (CMPs) was carried out to explore 1) factors contributing to 2) levels of and 3) associations between Nepali TSE and CMPs.

The data were collected using Nepali Teachers' Self-Efficacy (NTSE) and Classroom Management Practices (CMPs) instruments, which were developed using the e-Delphi technique. For this study, 390 secondary-level public school teachers from Kathmandu, Lalitpur, and Bhaktapur were chosen as research participants. The exploratory factor analysis (EFA) was employed to determine the factors contributing to TSE and CMPs. The factors extracted were further validated by confirmatory factor analysis. Descriptive statistics, correlation analysis and structural equation modeling, were other statistical tools employed to analyze the data.

The study explored four factors of TSE: efficacy in instructional planning, efficacy in the engagement of students, efficacy in behavioral competency, and efficacy in teaching skills. Likewise, it explored three factors for CMPs: management of processes related to teaching and learning, student management, and group dynamics. The study found that Nepali public-school teachers had high TSE and CMPs. In addition, the findings also demonstrated that there was a positive and significant association between TSE and CMPs. Results also confirmed that TSE affects CMP—teachers with stronger TSE can manage the classroom better.

It is established that highly efficacious teachers can effectively manage the classroom. The positive relationship between TSE and their CMPs contributes to improving students learning and achievement. This study implied that teachers' professional development should be framed, considering the factors contributing to Nepali teachers' efficacy beliefs and classroom management practices. The study's findings reinforced that teachers with high levels of TSE and CMPs tend to proactively apply and acquire new teaching methodologies and adopt innovative CMP approaches for an effective and empowering classroom environment. The efficacious teachers combined with effective CMPs promote positive outcomes for schools, such as students' achievement and learning. The study also discussed that in addition to teachers being highly efficacious and effective at CMPs, there might be other structural factors such as physical infrastructures, contemporary curriculum, climate-friendly classrooms, and influence-free socio-political situations that contribute to bringing tangible improvement in the quality of public school education in Nepal.

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DECLARATION

I hereby declare that this thesis has not been submitted or published as part of any other degree candidacy.

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DEDICATION

I dedicate this thesis to my mother, Abagati Devi Shah, my wife, Reetu, my daughter, Dakshita, and my son Drabya.

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ABBREVIATIONS AND ACRONYMS

CFA	Confirmator Factor Analysis
CMPs	Classroom Management Practices
EFA	Exploratory Factor Analysis
MOE	Ministry of Education
MOEST	Ministry of Education, Science, and Technology
MoF	Ministry of Finance
NTSE	Nepali Teachers' Self-Efficacy
PTA	Parent Teachers Association
SEM	Structural Equation Modelling
SMC	School Management Committee
TSE	Teachers' Self-Efficacy

CHAPTER I

INTRODUCTION

Teachers are revered as community leaders who can lead society toward social transformation and progress because they understand that civilization depends on them. To maximize teachers' professional contributions inside the school for academic teaching and learning or outside for societal change and development, it is essential that they have a strong sense of efficacy beliefs. Strong self-efficacy among teachers is associated with better classroom management and higher student academic accomplishment. This study examined the factors that influence classroom management practices (CMP) utilized by Nepali teachers, as well as the degree to which those management practices are associated with a sense of self-efficacy on the part of the teachers. This study addressed two key concepts—teachers' self-efficacy (TSE) and CMPs—as well as their relationships. In this chapter, the researcher described the research problem, rationale of the research, research questions, purpose, and study delimitations.

Context of the Study

Self-efficacy is a person's confidence in their competence to attain intended results under specific conditions. The four key processes of cognition, motivation, influence and selection have different effects (Bandura, 1994). He added that a high sense of efficacy supports human success and well-being in various ways. People who are secure in their abilities approach difficult jobs with motivation rather than feeling threatened or discouraged. Such a work ethic encourages inner passion and a sharper academic focus. Setting and achieving goals is done with self-discipline. When they fail, they learn from it, pick themselves up and try again (Bandura, 1994).

Even when they fail or fall back, those with strong self-efficacy rapidly restore their sense of success. Those people blame failure on a lack of sufficient effort, although knowing that they are attainable. They weigh the risks involved with a task and are confident in their ability to manage them as they materialize. This pragmatic strategy results in personal accomplishment that lowers stress levels and alleviates depression (Maddux, 2012). Similarly, those who are doubtful of their abilities tend to shun challenging endeavors because they worry about endangering themselves. They continue to have low expectations and a feeble commitment to the goals that they have chosen to pursue in their lives. They focus on their weaknesses, challenges, and the negative impacts of the situation rather than on how to function efficiently when given challenging work.

The self-efficacy theory is particularly relevant in the role of personal cognitive elements. This theory examines the impact of behavioral thinking, as well as the effect of conduct and the impact of external influence on the cognition processes (Qusay, 2020). According to self-efficacy theory, mental and behavioral change processes function through shifts in individuals' conceptions of self-control or self-efficacy (Qusay, 2020).

With regards to people with poor self-efficacy, they are more vulnerable to failure. When things get tough, they work less and give up more quickly. After failure or setbacks, they need a while to rebuild their sense of significance. Stress and despair are more likely to affect those who lack self-efficacy (Bandura, 1994). Beliefs continue to be crucial indicators for people to endure in their effort to succeed (Bandura, 1997; Maddux, 2013). They also indicated that professional-led behavioral change tactics, mental health, physical health, and mental rehabilitation are all covered under the theme of self-efficacy.

Two key concepts pertaining to TSE, CMP, and their interaction have been discussed in this thesis. Teachers' actions, objectives, and behavior in the classroom are influenced by their core values. TSE is characterized as their confidence in their capacity to successfully handle duties associated with their line of work. TSE affects crucial academic outcomes such as students' achievement, motivation and well-being (Barni et al., 2019).

Teachers' aims and how they act in the classroom are directly influenced by their values. In addition, the well-being and modesty of the individual can be supported by values, which is important for self-efficacy. TSE is defined as the confidence teachers feel in their ability to successfully manage the activities, obligations, and obstacles associated with their professional employment. TSE plays a significant part in determining critical academic outcomes, such as the academic achievement of students, their motivation, as well as well-being in the school climate. In general, TSE can be defined as teachers' belief about their capability to successfully manage duties, responsibilities, and issues linked to the profession. This belief is central to the teaching student efficacy (TSE) construct (Barni et al., 2019).

Moreover, strong TSE is linked to teacher persistence when dealing with difficult tasks like classroom management (Romi & Leyser, 2006). They defined TSE as teachers' confidence in how successfully they can assist students in their learning. Furthermore, they underscored that teachers with a stronger level of self-efficacy were enthusiastic about accepting academic tasks to address the requirements of students in the classroom setting.

The skills, character traits, and professional ethics of teachers that support them in carrying out their academic duties are called CMP. It is connected to the efforts of teachers to provide a vibrant learning environment (Djigic & Stojiljkovic,

2011). Three different types of teachers' CMPs—participatory, non-interfering, and collaborative—have been identified by Martin and Baldwin (1993). When using classroom management techniques, teachers with good work ethics outperform those with low self-esteem (Hoy et al., 2004). Teachers with a strong sense of work ethics are more likely to implement innovative classroom management approaches that are well-planned, organized, student-oriented, and responsive to the input of students (Kritsonis & Anthony, 2000). In contrast, teachers with low self-efficacy are more likely to become less organized and have poorer classroom management skills. Because of this, they are more prone to bully other people, leading to behavioral problems (Kratowill & Shernoff, 2007). There is a variation in classroom management techniques between high- and low-performing teachers (Gibson & Dembo, 1984). They asserted that ineffective teachers lose their position easily and blame the students when they cannot respond to questions quickly.

On the other hand, highly effective teachers tend to devote most of their time to academic pursuits, work with underachievers, are less critical, and promote achievement. Additionally, research shows that instructors with higher levels of self-efficacy experience less stress at work and have less difficulty handling student misconduct (Caprara et al., 2006). Therefore, a thorough understanding of self-efficacy may help foster teacher well-being and the effectiveness and efficiency of school development (Barni et al., 2019). Thus, teachers with a strong sense of self-efficacy can be more productive, leading to better mental, physical, and social well-being.

Teachers use classroom management practices to ensure that lessons continue smoothly despite disruptive student behavior. It also entails minimizing interruption to students. It is a collection of methods and practices the teacher employs in the

classroom to keep the students on task, awake, focused, and academically successful (Isuku, 2018). He stressed further that it is the role of the teacher to manage both the learning and teaching environment in the classroom. As classroom managers, instructors ensure that students and other school resources are used effectively to achieve the institution's objectives. The leadership style of the teacher has a significant impact on how the classroom is conducted.

A school administrator is a crucial facilitator who needs to work with students, teachers, and other critical stakeholders. A skilled teacher may effectively manage a variety of aspects of classroom administration, such as resources, the success of the schools, including the happiness of students, achievement and development, and teaching-learning (Nepal, 2020). It is generally acknowledged that by adjusting to the school environment and fostering interpersonal and institutional interaction, leadership supports the development of student learning.

There are three types of classroom management. According to Martin and Baldwin (2008), they are interactionist, noninterventionist, and interventionist. Interactionists encourage student interaction, whereas interventionists use teacher-centered classroom practices. The non-interventionist approach focuses on students identifying and meeting their own needs. Classroom administration includes managing the environment, scheduling tasks, building supplies, staffing, social relations, and student behavior (Iqbal, 2010; Margaret, 2014). Teachers have primarily used the interventionist method of classroom management in Nepal's public institutions.

Teachers' Self-Efficacy SE is impacted by teaching approaches, management of classroom interrogation strategies, levels of work ethic, creativity, and responses to students' inquiries (Gibson & Dembo, 1984). Teachers with a stronger sense of

efficacy are good at applying innovative approaches to classroom management.

Effective teachers use tactics to maintain a structured, orderly, and student-centered classroom (Kritsonis & Anthony, 2007). According to the claim, behavioral issues result from teachers' poor classroom management strategies (Kratochwill & Shernoff, 2007). In contrast, Tschannen-moral et al. (1998) stated that teachers who are good at self-efficacy would not be critical of students who give incorrect responses and would persevere through difficulties more productively.

According to Chamber (2003), instructors with a stronger sense of self-efficacy outperformed those with weaker levels in terms of their beliefs about having control over classroom management. According to Chambers et al. (2001), developing one's sense of personal efficacy was more important for classroom management than the teacher's personality types. The teacher is in charge of keeping an eye on the educational setting to ensure efficient classroom management. Students' success is primarily impacted by learning that takes place in a classroom setting.

Teachers are responsible for upholding order during instructional periods as a classroom manager. When creating classroom activities and instructional materials, it is crucial to consider the requirements and characteristics of the students. Effective instruction, student needs, and student traits are directly related to classroom management (Jones & Jones, 2001). Additionally, it is important to understand the child's family and culture so that the instructor may include the learners' cultural beliefs and family history in their learning patterns(Saricoban, 2006).. In light of the circumstances in the classroom, school, and community, it is important that teachers plan any processes relating to education in a more transparent way.

In this regard, motivated teachers are more inclined to take the initiative to learn about their students' socioeconomic origins and cultural beliefs. Khanal (2016)

discovered that attitudes toward student engagement, math teaching and learning, and students' attitudes about mathematics as a subject all impacted students' learning methods. While public school teachers and kids did not get along as well, teachers in private schools enjoyed close relationships with their students (Khanal, 2016) .

Teachers' capacity to effectively manage a classroom is determined by how they employ the teaching-learning materials, arrange the seating, and collaborate with and motivate the students. Ensuring a proper seating arrangement is crucial to improving interactions between students and teachers (Khanal, 2016). It is crucial to design a seating arrangement for students if our goal is to teach in their native tongue so that they can converse in that language. The U-shaped circles are highly recommended to guarantee that students directly face each other and enhance classroom engagement (McKeown et al., 2016). They also talked about how crucial it is to organize the study space to prevent pupils from being sidetracked from the teaching-learning process. One strategy to improve mental security is letting pupils select their seats. Student behavior and achievement levels have improved with smaller class sizes. It can be summarized that effective technology use, management-teachers-student contact, student engagement, and seating arrangement are all essential components of good classroom management.

In the case of Nepal, the government has a high budget allocated (nrs. 16 billion from FY 2022/23) for the education sector. After the promulgation of the new constitutions, Nepal has transitioned to a federal structure with three government tiers with certain jurisdictions. Activities carried out by erstwhile District Education Offices (DEOs) have been transferred to local governments. And seven provincial governments have supportive roles in developing basic and secondary level education (Karki & Bhatta, 2018). The federal government supports education financing through

teacher salaries, textbooks, the infrastructure of schools, and scholarships. It has developed various programs and policies and implemented different kinds of educational programs to help people envision education with quality standards. Keeping in mind public education, Nepal has also implemented various programs to end illiteracy in the country by 2015. However, the achievement was not as satisfactory as it should be (Kharel, 2017). He further stated that there is still much to be gained. The government sector has to compete with the private sector to provide education. The findings from Kharel's study have demonstrated that despite the enormous expenditure, the government's funding level is insufficient to keep up with the level of education provided by non-governmental institutions. When viewed in this light, the administrative agent's functions are significant in ensuring that pupils receive an education of sufficient caliber.

Deployment and the re-employment of teachers according to the school's needs has become a critical issue. In addition, the appropriate choice before teachers' appointment becomes an issue for the government and other stakeholders, including donor organizations (Kharel, 2017). He further stated regarding the delivery of higher education that the availability of skilled and competent people in teaching forces and their retention at the school is another problem. It is anticipated that the qualified teaching force, which can execute its tasks and obligations up to the appropriate level, would contribute to the realization of the goal of providing quality education (Kharel, 2017). This suggests that the country's education is only as good as the quality of the teachers involved in the system.

Grades 9 through 12 are regarded as secondary education in Nepal. Despite more people in Nepal accessing secondary education, learning outcomes remained dismal. The Nepal School Sector Development Program (SSDP) (MOE, 2016)

recognized multiple issues with managing teachers and their professional development. The difficulties include teacher absenteeism, a lack of attention to students' learning, a poor application of training material in the classroom, and a lack of teacher motivation. The SSDP acknowledges the importance of good teaching methods in raising students' academic performance at all levels (MOE, 2016). Although intentions for allowing teachers to enroll in pre-service and in-service professional development courses based on the teacher's competency framework were mentioned in the SSDP's strategic intervention, the development and testing of the framework are still in question.

Teachers' management and professional development have not advanced particularly well under the SSDP. The 10-year-long Nepal Education Sector Program (ESP) now carries the torch (MOEST, 2021). To close the gap revealed by the SSDP, this study investigates psychological constructs like TSE and their CMP as viewed by teachers.

According to Ham (2018), instructors in the focus groups said the training they were taking was inappropriate for their teaching circumstances. They have drawn clear linkages between their sparse application of learned techniques and the lack of training materials in their classroom activities. These results align with the SSRP final assessment report's assessment of the teacher training program in Nepal (GFA Consulting Group, 2016; Ham, 2018). This transformation can be linked to teacher preparation programs and real-world examples (Ham, 2018). The results of the observations highlight that Nepali teachers use textbooks and the whiteboard extensively as their teaching aids. As a result, one of the fifteen classes had additional resources, such as reading materials, games, wall charts, and other teaching/learning

items. The absence of resources has been perceived as a barrier to effective teaching methods (Ham, 2018).

The range of resources that teachers identified as being unavailable was extensive. There is not enough money allocated for planning and purchasing. There is not enough room in the classroom to accommodate many students, and facilities like electricity and the Internet are not readily available. They recognized that this had a direct bearing on their capacity to put the training-based skills into practice. Teachers reported that in addition to the restricted number of resources, the absence of other resources, such as time, had an impact on their students' limited capacity to learn and speak English, their level of motivation, the number of classes they had and their teaching practices (Ham, 2018).

According to research, a teacher's general competence significantly affects the pupils' learning and academic success. It is vital to ascertain the degree and relationship between TSE and CMPs employed by Nepali public-school teachers since teachers significantly impact various indicators used in a classroom context.

Statement of the Research Problem

A school is as good as its teachers. One of the contributing reasons for the underachievement of public schools in Nepal is the poor quality of the teaching staff. According to MOE (2020), 96% of teachers from public schools participated in training and were paid on par with other government employees. However, absenteeism and irregularity are common problems among Nepali public-school teachers. A study conducted about the performance of Nepali community schools found that 66% of community school students have an unsatisfactory level of learning compared to students from private schools (Chapagain, 2021). This shows how underperforming Nepali community schools are. Likewise, National Assessment on

Students Achievement report (2020) concluded that students from community schools struggle to achieve even a minimum level of learning. The report suggested that teaching-learning practices, coupled with the role of principals, have caused problems with students' academic achievement. The research emphasized that institutional schools have surpassed community schools and that the regularity of instructors' presence in the classroom affected children's academic achievement (ERO, 2020).

In terms of a broader perspective, the degree to which teachers believe they can influence their pupils' learning and behavior is indicated by their level of teacher self-efficacy. TSE affects how they teach and how motivated and successful their pupils are (Klassen et al., 2009). However, persistent problems with measuring efficacy belief remained an issue for years (Hives, 2003). Bandura (1997) argues that the assessment should represent a specific context or domain of functioning rather than measuring a general function when evaluating teacher self-efficacy. The ability of instructors to instruct is included in a general measure of teacher self-efficacy, whereas their proficiency in a particular context or domain is evaluated (Reupert & Woodcock, 2010). In this context, it is critical to understand how instructors' self-efficacy affects their approach to instruction and classroom management.

A key issue for both experienced and new teachers is the management of classroom practices (Rose & Gallup, 2000). Effective classroom management is the primary method for enhancing learning efficacy, claim Lakes and Smith (2002). To improve student results, teachers must manage the classroom effectively to foster an environment conducive to learning (Martin et al., 2008). Therefore, teachers' effectiveness can greatly influence classroom management methods.

Only a few studies on TSE and its impact on CMPs have been made in the Nepali context. There has not been any research on the association between TSE and

CMPs in Nepali secondary-level schools. Thus, it is critical to identify the specific classroom management techniques employed by instructors with high self-efficacy.

Existing works of literature seem to indicate that TSE plays a role in classroom management, resulting in higher academic performance and achievement for students. However, in the case of Nepal, no systematic research has been done so far. The research studies on TSE and CMP from the international context could not explain the cultural and diverse phenomenon of Nepali classrooms and teachers. The cultural factor has the potential to play a part in the self-efficacy of teachers. The Cultural Dimensions Framework developed by Hofstede (Hofstede Insights, n.d.) can be utilized to understand how teachers' ideas and perceptions of their own capabilities and effectiveness in the classroom may be influenced by cultural values. Additionally, the self-efficacy level of public school teachers, the association between TSE and CMPs, and factors contributing to TSE and CMPs are also unknown. Therefore, the present study explored how higher self-efficacy contributes to CMPs resulting in higher-quality education in Nepali public schools.

Rationale of the Study

Teachers' professional development and management have been highly emphasized throughout all education sector programs, from the School Sector Reform Program (SSRP) to the current Education Sector Program (ESP). A main strategic achievement of ESP is to improve learning achievement with the arrangement of capable and motivated teachers (MOEST, 2021). Nepal Education Sector Analysis (MOEST, 2021) has stated that public education in Nepal has suffered from the continued low level of students' outcomes because teaching quality is poor. Despite the priority placed on past and current reform initiatives, the report mentions that teachers should emerge with a higher level of pedagogical and content-specific

knowledge. This is exactly why this study is important to carry out. This study digs out the root cause of how teachers can be effective in a classroom setting. As the earlier research outlined, a highly efficacious teacher can manage a classroom effectively, thereby improving student academic achievement and learning.

The federal transition has impacted teachers' professional development and support structure. However, the teacher's effectiveness in the classroom cannot solely be attributed to whether a teacher is trained or not. As Fives (2003) indicated, TSE would effectively support students' academic achievement and learning when it translates into the classroom management setting. Although training can certainly help build confidence and thereby improve TSE, it is not the only factor in doing so. Therefore, the study stands strongly to justify that improving TSE contributes to effectively managing a classroom. These two constructs positively impact students' learning outcomes and achievements.

The quality of an education system is a function of how qualified teachers it holds and how conducive the social-cultural context it is operating under. Improving the quality of education is an urgent reform priority in Nepal (NIRT, 2016). A significant way of changing the dynamic of the poor education system is by finding a nuanced way of teacher management and capacity development. Teachers' professional development and management should be context-specific by catering to the challenges faced by teachers' motivation and beliefs about their jobs. Therefore, this study unpacks why teachers need to improve their self-efficacy and CMPs resulting in improved learning for public school students in Nepal.

TSE and CMPs are two important psychological constructs in the education sector. Despite growing numbers of research in the international context, the TSE in connection with their CMPs is a less researched topic in Nepal. Fives (2003) outlined

three factors that the researchers should consider while researching TSE. Firstly, there are inconsistencies as to how TSE is defined and measured. Therefore, it is important to recognize the measurement types and their implication in practice and research. Secondly, self-efficacy is a complex psychological phenomenon, and it is important to unpack the factors contributing to this through this research. Finally, little focus has been placed on how TSE impacts a teacher's classroom management practices. Therefore, this study explores the association between TSE and CMPs in the context of Nepal.

Purpose of the Study

This study aimed to explore the level of the relationship between and factors contributing to teachers' self-efficacy and classroom management practices. More specifically, the study identified and measured factors contributing to teachers' self-efficacy and classroom management practices in Nepali public secondary education level. It measured the level and explored the association between these two factors in the context of secondary schools in Nepal.

Research Questions

The study embraced the following three major research questions based on the statement of the problem:

1. What factors contribute to teachers' self-efficacy and classroom management practices in secondary-level Nepali public school teachers?
2. What is the level of teachers' self-efficacy and classroom management practices among teachers of public secondary level schools in Nepal?
3. What is the relationship between teachers' self-efficacy and classroom management practices in Nepal public secondary level school teachers?

Research Hypotheses

This study developed the following hypotheses in line with the research questions.

H₁1: Efficacy to students' engagement (ESE), instructional preparation (EIP), behavioral competency (BC), and teaching skills (ETS) contribute to Nepali teachers' self-efficacy.

H₁2: Teaching and learning processes (MTLP), management of students in a class (MSC), and management of group dynamics (MGD) contribute to Nepali teachers' classroom management practices.

Delimitations of the Study

There could be multiple factors that can contribute to improved academic achievements for students. This study examines only the level of and relationship between TSE and CMPs regarding improvement in academic achievements. The study also explored the factors that contribute to TSE and CMPs. The study covered only public schools located in the Kathmandu valley. The study examined TSE and CMPs using tools developed through the e-Delphi technique.

Limitations of the Study

The findings of this study are restricted in several ways. First, this study relied on teachers' self-reported perceptions about their efficacy beliefs. The perceptions of the teachers who participated in the study were gathered with the help of the TSE and CMP tools. When it came to gauging the concept of TSE and CMPs, the surveys were not a one-size-fits-all approach. Several restrictions were accounted for by the nature of the items being surveyed. Nonresponsive bias was taken into consideration because it was impossible to account for a participant's prejudice when responding to the survey questionnaires. Second, in most cases, the teachers responded to the

questionnaires from inside the school premises. This may have put them in a difficult position, despite the orientation from enumerators to rate some of the questionnaire items. Third, the respondents for this study come from three districts of the Kathmandu valley. Kathmandu, Bhaktapur and Lalitpur are three of the most developed cities in Nepal. Although the respondents are heterogenous in these districts, their access to resources might be sophisticated compared to the public schools in rural parts of Nepal. Fourth, this study examined the factors contributing to the level of and the relationship between TSE and CMPs based on the respondent's perceived efficacy and their perceived CMPs. Other factors might contribute to the quality of overall public education; this study only focused on the impacts of TSE and CMPs. Finally, since the findings are based on self-reported responses, Dunning-Kruger (D-K) effect might have played a role in how the respondents rated the items. The respondents' bias could not be verified in surveys that require perceived beliefs about psychological constructs. In this case, bias could be because of the D-K effect, which states individuals are biased because either they are indifferent to or unaware of their own preferences. The study examined TSE and CMPs using tools developed through the e-Delphi technique. The findings are based on the teachers' perceived efficacy and CMPs.

Operational Definition of Key Terms

Classroom management practices (CMPs): It is a classroom procedure that utilizes all available resources effectively and efficiently to meet the goals of the teaching and learning process (Isuku, 2018).

Teachers' self-efficacy: Teachers' belief in their ability to teach students well and achieve successful learning outcomes.

Efficacy on students' engagement: Teachers' belief in their ability to keep students engaged throughout classroom time.

Efficacy in instructional preparation: Teachers' belief in their ability to prepare for teaching and learning practices and to deal with difficult topics.

Efficacy on behavioral competency: Teachers' trust in utilizing their right attitude, personality traits, and interpersonal relationship while teaching.

Efficacy in teaching skills: Teachers' belief in their ability to effectively deliver a lesson.

Management of teaching and learning processes: Teachers' management skills in terms of mapping the required resources, finding them and utilizing them for an effective classroom engagement.

Management of students: Teachers' management practice in developing student- centric classroom setting (more democratic environment).

Management of group dynamics: Teachers' management skills to improve the emotional and social climate resulting in minimized disruptive behaviors by a student or group of students.

Nepali teachers' self-efficacy scale: A scale that is used to measure teachers' self-efficacy in Nepal.

Classroom management practices scale: A newly developed tool that is used to measure teachers' classroom management practices in Nepal.

Dunning-Kruger (D-K) effect: Lack of metacognitive capacity to give an accurate estimate of their ability to complete the work. This effect assumes a relationship exists between performance, metacognition, and judgmental accuracy (Gordon et al., 2017).

Organization of the Study

This thesis is arranged into seven chapters. The first chapter discusses the introduction of TSE and CMPs and their relationship. The chapter also includes a statement of the problem, purpose, rationale, research questions, and delimitation of the study. Chapter two outlines a detailed review of thematic issues covering this study. Likewise, chapter three talks about the methodological plan, including the processes of constructing questionnaires. The fourth chapter focuses on identifying factors that contribute to TSE and CMPs. Chapter five outlines the level of and relationship between the TSE and CMPs. Chapter six deals with findings and discussions, while chapter seven concludes the thesis by outlining a summary, conclusions and implications.

CHAPTER II

LITERATURE REVIEW

This chapter explores and analyzes the past literature on TSE and CMPs and their relationship. The researcher then presented theories supporting these two constructs. Finally, the researcher presented a framework of concepts based on the research gap explored through a literature review.

Teachers' Self- Efficacy (TSE) and Classroom Management Practices (CMPs)

The foundation of this study is the two main constructs, TSE and CMPs, and their interactions. Teachers' actions, objectives, and behavior in the classroom are influenced by their core values. Self-efficacy in teachers is the conviction that they can successfully complete activities connected to their line of work. TSE degree affects students' crucial outcomes, such as academic achievement, learning motivation, and well-being (Barni et al., 2019).

Classroom management encompasses a teacher's aptitudes, character, and moral principles as they relate to their profession and are intended to assist them in carrying out their academic duties. CMP is connected to teachers' efforts to provide a vibrant learning environment (Djigic & Stojiljkovic, 2011). There are three approaches that teachers might take while managing their classrooms: participative, collaborative, and non-interfering (Martin & Baldwin, 1993). Teachers with good work ethics outperform those with low self-esteem when using classroom management techniques (Kratowill & Shernoff, 2007). Teachers who have lower levels of self-efficacy have been proven to be less organized and have poorer skills in managing their classrooms.

Teachers' Self-efficacy

The term "self-efficacy" was coined by Albert Bandura, who is credited with being the pioneer of its introduction. All anticipated outcomes and efficiency impact each person's behavior (Bandura, 1997; Chan et al., 2020). In a particular situation or place, expectations of a result based on human moral judgments may produce particular effects (Chan et al., 2020). He further stated, however, individuals could not display that behavior unless they believed in their competence or anticipated success. Teachers' objectives and behaviors in the classroom are guided by their ideals. Values can also increase a person's self-efficacy by encouraging their wellbeing and humility. Academic outcomes, such as student motivation and workplace satisfaction, are greatly influenced by teachers' confidence in their capacity to successfully manage academic demands, barriers, and obligations compared to professional employment (Barni et al., 2019). Teachers' goals and objectives can be as strong as their belief in their capability to teach students effectively.

Teachers' goals and actions at school are furthered by their ideals. Values can also help a person's physical and mental health and humility for self-efficacy. Key academic outcomes like student motivation and achievement, in addition to their physical and mental health at work, are significantly impacted by TSE (Barni et al., 2019). TSE is defined as teachers' confidence in their capability to manage school tasks, responsibilities, and problems related to the job.

Teachers believe in their ability to teach students well and achieve successful learning outcomes. Due to how teachers conduct themselves in the classroom, there are significant variances in the kind of lessons they provide and the strategies they regularly use (Achurra & Villardon, 2012). Self-efficacy is associated with the theoretical underpinning of the social cognitive theory (Bandura, 1997). The

effectiveness of educational activities and practices depends on teachers' confidence and faith in their technical competence to handle the adjustments needed for student-centered techniques (Rodríguez et al., 2009). Teachers' ability to select tasks and assignments, exert effort and patience when faced with challenging activities, and react emotionally to stressful circumstances all depend on their self-efficacy or self-awareness. Self-efficacy ultimately forges a psychological connection between knowledge and practice (Rodríguez et al., 2009). This affects the effectiveness of the action, together with other elements.

TSE has several advantages, including improved instruction, student motivation and achievement, quality learning processes, and teachers' mental health (Zee & Koomen, 2016). TSE is discovered to have played a crucial part in school psychological research due to its possible effects on effectiveness, teaching, and school success.

High self-efficacy teachers are better at addressing student misbehavior, enjoy their professions, and experience less stress at work, according to Caprara et al. (2003). TSE may have long-term benefits for improving a school climate by improving teachers' well-being and effectiveness in their teaching approaches (Barni et al., 2019). Past research studies have determined that several outcomes are related to TSE. These outcomes include teachers' increased zeal, dedication, and integrity (Tschannen-Moran & Hoy, 2001). Additionally, Romi and Lyysen (2006) went into greater detail with regard to the relationship between TSE and CMPs.

A thorough evaluation of the literature on the relationships that complicate teacher values, beliefs, knowledge, understanding, and context was undertaken by the Nepali scholar Belbase (2012). According to him, teachers' beliefs in terms of values, knowledge, and viewpoint on the structure of the setting summarize the study's

findings. This data demonstrates that teachers' beliefs include their values. Because values are associated with ethics and significance-based ethical judgments, they are distinguished from beliefs (Belbase, 2012). He further stated that a person's perception or perspective is influenced by their teachers' opinions, which are influenced by the knowledge at some point available to them in their setting. This information covers introducing new instructional strategies due to a change in the study's environment. The elements, attitudes, beliefs, insights, and information in each subject are particular to the teacher's content.

According to Nepali culture, a Nepali teacher may have opinions about how someone should be treated based on their caste within the social hierarchy. This might be different for a teacher raised in a society where the caste system was not a common practice. When new information is presented in the context of Nepali culture, in this case, the concept of equality, a society where everyone is valued equally, Nepali teachers can consider how to apply this new information to their beliefs and objectives, affecting their students' performance in the classroom (Belbase, 2012; Ham, 2018). This implies that each Nepali teacher's reaction to this further information regarding how their inner vision, such as their caste or high caste status, affects their views and values may differ.

Hofstede Insights (n.d.) applied Hofstede's 6-D Model to examine Nepal's national culture. The 6-Ds included i) power-distance index, ii) collectivism vs. individualism, iii) uncertainty avoidance index, iv) femininity vs. masculinity, v) short-term vs. long-term orientation, and vi) restraint vs. indulgence. According to Hofstede Insight's findings, Nepal's score in power distance is high (35), which means Nepal is a hierarchical country. In terms of collectivism vs. individualism, it is a collectivist society with a low score of 30. Furthermore, regarding masculinity vs. femininity,

Nepal's score is low (40), suggesting Nepali people care about others rather than competing with others. Likewise, Nepal scored low in the dimension of uncertainty vs. avoidance (40), meaning Nepali people prefer avoiding uncertainties and do not take risks. Nepal has no scores for short-term vs. long-term and restraint vs. indulgence dimensions. This might imply that some aspects of Nepali teachers' views toward learning and education stem from their own culture and should be recognized for their distinctive traits in the context of this study (Ham, 2018). The Nepali culture tends to minimize uncertainty by rigorously following cultural laws and codes. The concept of Nepali culture offers details on building a fundamental comprehension of the setting on which Nepali teachers' beliefs may be based.

Factors Contributing to the Teachers' Self-efficacy

Positive emotional encounters expand a person's fleeting thought-action repertoire and develop long-lasting individual resources, improving well-being, adaptive functioning, and subsequent positive emotional encounters (Buric & Moe, 2020). According to Woolfolk's (2004) research, a teacher's self-efficacy ultimately determines whether they can motivate students to learn and guide them in the right way, even when working with students who may not be motivated or who are challenging to work with.

Teaching experience, the teaching context, understanding of educational policies related to inclusive education, pre-service teachers' education, and experiential learning opportunities for teachers impact teachers' self-efficacy (Wray et al., 2022). A high self-rating of emotional stability and self-efficacy is associated with a more positive evaluation of the teacher-student relationship and classroom management skills (Wettstein et al., 2021). Positive relationship between teachers and students is crucial for classroom management successes.

Additionally, teachers must be confident in their abilities to implement effective instructional techniques that result in students' education and learning, motivation, and other positive outputs (Duffin et al., 2012). Supporting pre-service teachers is crucial to ensure that they have solid and productive beliefs to develop effective, efficient, and motivated instructors (Pendergast et al., 2011). In order to have a better understanding of instructors and the evaluations of their skills and capabilities, it is essential to have an understanding of the different types of factors that contribute to the formation of efficacy beliefs in teachers during the developmental years of their careers (Tschannen-Moran & Hoy, 2007). This helps the early career teachers to continue to hone their teaching skills.

There has been a consensus that teacher performance may vary depending on particular abilities, functions, or situations i.e. it pertains to a particular context. (Henson, 2001; Tschannen-Moran & Hoy, 2001). Thus, looking into probable elements that may alter efficacy is helpful, especially in a specific field of study

Without considering academic issues, the literature examines teacher self-efficacy in various disciplines, including abilities, enthusiasm, morals, motivation, attitude, student accomplishment, and beliefs about students' or faculty's hard work during in-service or pre-service. Researchers have examined the connection between TSE and other factors like gender, age, teaching expertise, teacher status, level of education, and other demographic shifts(Duffin et al., 2012). Numerous efforts have been made in the literature across a range of subject areas to identify components that could support the development of teacher effectiveness views.

In addition to Bandura's resources, other factors such as in-service teaching training, professional development opportunities, teaching techniques exposure, school heads and administrators' support, colleagues, parents, communities, and the

climate of the school all have an impact on a teacher's sense of self-efficacy (Cheung, 2008). Although most of Bandura's recommended working resources (power exposure, dynamic knowledge, physical and emotional conditions, and vocal plea) have been investigated, most of Bandura's proposed working resources (power exposure, dynamic insight, physical and emotional contexts, and verbal appeal) alter teacher performance perceptions for better or worse in the setting of pre-service teaching (Mulholland & Wallace, 2001).

There is evidence that a variety of factors influences pre-service teachers' formation of views, including teaching experience, academic courses, teacher profiles, courses and chosen materials, administrators, students, teacher forms, and curricula (Cheung, 2008; Guo et al., 2012; Tschannen-Moran & Johnson, 2011; Phan & Locke, 2015). For instance, it has been discovered that pre-service teachers' ideas are influenced by teaching experience, academic courses, teacher portraits, courses and chosen materials, administrators, students, teacher forms, and curricula (Yeung & Watkins, 2000). In addition, Poulou (2007) stated that personality traits, skills and abilities, motivation, and training remained effective in developing pre-primary teachers. Oh (2011) found that only personality traits, abilities, motivation, experience using verbal or social persuasion, and emotional and physical status were important predictors for classroom management in another study of pre-service teachers in their literacy classes in the curriculum.

Classroom Management Practices (CMPs)

Isuku (2018) describes CMPs as a procedure to utilize all available resources in a classroom environment effectively and efficiently to meet the goals of the teaching and learning process. Teachers employ CMPs to ensure classes go well despite unruly student conduct. Additionally, it involves minimizing student

disruption. It consists of various methods that the teachers use to keep the students on task, awake, focused, and productive in terms of academic learning (Isuku, 2018).

This is a critical component of classroom management as it relates to academic learning and achievement.

There are three types of teacher classroom management, according to Martin and Baldwin (2004b), they are interactionist, noninterventionist, and interventionist. Classroom administration includes managing the environment, scheduling tasks, building supplies, staffing, social relations, and student behavior. As a result, this idea is connected to a number of classroom activities, including fostering a favorable learning environment visually, establishing and enforcing rules for the classroom, handling disruptive conduct, and encouraging student learning (Watkins & Wagner, 2000). To recognize and rectify students' incorrect behavior, teachers must use tactics that make the most of counseling and behavioral approaches (Harris & Muijs, 2005; Iqbal, 2010; Margaret, 2014). By recognizing and rectifying students behavior, teachers establishes a trustworthy environment for both the teachers and pupils to thrive.

Teaching effectiveness remains a critical issue for educational researchers. As evidenced by student outcomes, many disciplines have a bias against describing the elements that go into good teaching. Numerous studies demonstrate that classroom behavior by instructors has a more significant impact than any other decision made by school authorities (Marzano & Marzano, 2003). Teachers have access to a variety of teaching and learning resources. Some authors emphasize the unique qualities of the teacher, while others emphasize their tasks and skill sets. The correct environment must be established in the classroom(Saricoban, 2006). To complete this objective,

teachers must practice school management based on positive and beneficial connections with their pupils.

The teacher must manage the classroom teaching and learning environment. As a classroom manager, instructor ensures that students and other school resources are used effectively to achieve the institution's goals (Isuku, 2018). The leadership style of the teacher has a big impact on how the classroom is run. According to Nepal (2020), the school administration serves as an important facilitator and should be led by a person with experience managing students, teachers, and the school setting. A strong leader can effectively manage a variety of aspects of classroom management, including investment (physical resources and people), school success (student satisfaction, achievement, and development), and procedure (teaching-learning and after-school activities).

Leadership fosters student learning by adjusting to the educational environment and sustaining interpersonal and institutional communication (Nepal, 2020). There are three leadership styles for classroom management: authoritarian, laissez-faire or permissive, and democratic. The authoritarian leadership style directs pupils' behavior with little student involvement and a teacher-centered approach. Similarly, the laissez-faire or permissive leadership style disapproves of rigid rules. According to Margaret (2014), a teacher with a laissez-faire leadership style allows students to work independently with the least amount of supervision. Without actually imposing their opinions, teachers act as mentors, helping pupils to grow and succeed.

Teachers can participate in the classroom community, embracing the democratic leadership style. A teacher would interact with students in such a setting, engage them in activities, and provide guidance without attempting to exercise

control(Saricoban, 2006). Such instructor conduct inspires pupils to take charge of their given duties and responsibilities and establish higher learning objectives.

According to a study carried out in Nigeria with 200 Senior Secondary students, verbal instructions, instructional supervision, corporal punishment, and devolution of authority have a big impact on how well children do in school. The research demonstrated a relationship between the students' performance and classroom -- management(Saricoban, 2006). Adedigba and Sulaiman (2020) conducted a study among 250 elementary school instructors and children in Ilorin Metropolis, Kwara State, Nigeria. The study's findings showed that classroom management techniques impacted students' motivation to learn and their level of success.

School culture plays a role in student learning and behavior modification in the classroom (Adelman & Taylor, 2005). Respect and compassion between teachers and students must continue to be priorities to foster a conducive learning environment (Miller & Pedro, 2006). The needs and traits of the pupils are also very important when deciding how to manage the classroom. According to Jones and Jones (2001), effective teaching requires high standards, engaged students, joint learning, and diversity and inclusion.

Teachers can lessen classroom management issues by using a method that is carefully designed to fit the needs of students and promote their development (Saricoban, 2006). Additionally, effective seating arrangements can improve learning processes and the rapport between teachers and students. Class sizes are another aspect of managing a classroom. The smaller class size ensures improved student behavior which contributes to seriousness in education, resulting in improved achievement levels (Blatchford, 2018).

In Nepali high schools, Subedi (2000) found an unfavorable correlation between student achievement and classroom size. A study on the necessity for changing schools' old teaching methods into a new strategy by giving instructors enough incentives and readily available resources has indicated the need for instructional materials for CMPs. The study's results demonstrated how teachers' usage of resources and their accessibility had affected student progress (Subedi, 2000). Brush et. al., et al. also identified a positive correlation between student achievement and class size when providing teachers with resources linked to information technology and those unrelated to it to use in their teachings (Brush et. al., 1999). Pupils do better in class when they receive more assistance. Teachers must receive training on how to effectively use teaching materials if we are to improve school learning outcomes. Although resources differ from school to school, teachers are responsible for using their teaching materials effectively (Alkadry & Nyhan, 2005). These numerous factors help allocate the proper management of the classroom.

On the other hand, managing a classroom is very complex. Qualitative research with 30 English teachers in Iran identified three distinct categories of classroom management issues. There are three categories of difficulties: (1) Academic, (2) Behavioral or Psychological, and (3) Context-Related (Soleimani & Razmjoo, 2016). Uncertainty over students' skill levels, incomplete assignments, and students' insistence on speaking in their native tongue was among the issues with instruction. As for behavioral and psychological difficulties, it was mentioned that learners who were reluctant to speak were demotivated, arrived late, and misused cellphones and applications. Similarly, instructors' contextual constraints for effective classroom management included crowded classrooms and a lack of time management

(Soleimani & Razmjoo, 2016). These findings suggest that classroom management is a complex issue for both experienced and novice teachers.

A few obstacles or issues that the classroom management (teacher) may occasionally have to deal with include student backgrounds, interests, abilities, and teaching approaches. Teachers' classroom behavior greatly impacts their instruction and students' learning. Similarly, Chamila's study (2019) classified classroom difficulties according to factors contributing to students and teachers. Student conduct issues included indolence, tardiness, cell phone use, and clamor. Furthermore, teachers might interfere with classroom management due to ineffective time management, absences during instructional time, and tardiness.

While agreeing with the majority of recommendations made by different researchers, it can be concluded that classroom management has a lot to do with how teachers have set their academic goals to enhance teaching-learning processes. An effective classroom would be a democratic workshop where students feel empowered to express themselves, inspiring innovation and creativity.

Factors Contributing to the Classroom Management Practices

Teaching effectively is an essential concern in educational psychology. According to student accomplishment in schools, many subjects discuss elements contributing to effective teaching. Numerous studies show that despite the fact that these elements may be found in various sectors, teachers' actions in the classroom can be more significant than all other educational and administrative acts (Marzano & Marzano, 2003). There are several efficient teaching and learning resources available to teachers. While some authors focus on the teacher's personality, others highlight their functions and skills.

Building a safe and empowering learning environment is referred to as classroom management. The term refers to a teacher's personality, skills, and work ethic, which are intended to help them carry out all of their professional duties, as well as the challenges that students face and the outcomes of those activities. All teacher actions to create a stimulating learning environment are tied to classroom management techniques, as Martin et al. (1998) identified as an interventionist, noninterventionist, and interactionist.

English as a Foreign Language (EFL) instructors were able to select acceptable classroom management strategies for both face-to-face and online classrooms. In addition, the teachers maintained a constructive attitude regarding classroom management despite the widespread Covid-19 pandemic (Farkhani et al., 2022). This study offers fresh perspectives on successful education for teachers and students throughout the epidemic days.

Teachers conceptualized teaching and learning from a constructivist point of view. At the same time, they also held stronger classroom management self-efficacy. As a result, they expressed higher pedagogical content knowledge self-efficacy. Besides, teachers with traditional notions of teaching and learning tended to exhibit lower levels of self-efficacy and classroom management self-efficacy (Shen et al., 2022).

Classroom administration encompasses many areas: space management, time management, jobs, building materials, staffing, social relations, and student behavior. The setting of the visual environment, establishing and carrying out classroom procedures, observing student conduct, handling disruptive behavior, encouraging student learning, and delivering lessons in a way that encourages student activities are

all related to this notion (Watkins & Wagner, 2000). These processes contribute effectively to the management of a classroom.

A key factor of classroom learning is classroom climate. Prior research findings suggest a high correlation between classroom atmosphere and school student achievement. Students flourish in more cohesive classes, have a clear goal, less chaos and conflict, and offer better learning chances (Adelman & Taylor, 2005). Climate change in the classroom should emphasize mutual respect and understanding to create a stimulating environment for learning (Miller & Pedro, 2006). This is a strategy to foster an atmosphere of open discussion and encourage pupils to investigate new subject matter.

It is critical to establish an ideal environment in the classroom. To complete this goal, the teacher must practice classroom management techniques focused on positive and fruitful student interactions. Democratic leadership in the classroom refers to the instructor being one of the students and participating in discussions, participating in activities, and offering direction without attempting to rule (Saricoban, 2006). Instructors' conduct inspires pupils to accept the same position, assume ownership of their academic obligations, establish higher learning standards, and be motivated to succeed.

When creating language programs, classroom activities, and teaching materials, it is crucial to consider the requirements and characteristics of the students. The demands and characteristics of the students are also significant in managing the classroom because good classroom management and effective instruction are closely related. High standards, engaged students, collaborative learning, and the inclusion of pupils from all cultural backgrounds are all essential components of good teaching, according to Jones and Jones (2001). It is thought that using one of these ways in the

classroom assists teachers in minimizing issues with classroom management. These approaches satisfy students' demands, development, and culture (Saricoban, 2006). Additionally, it is important to understand the child's family and culture so that the instructor may include the learners' cultural beliefs and family history in the learning and teaching process. It is the responsibility of the teacher to plan the educational process in light of the conditions in the school, community, and classroom .

The physical arrangement of the seats influences interactions between teachers and students, as well as interactions between students and the material they are learning. It is crucial to create a seating arrangement that allows pupils to communicate independently if our goal is to communicate in the target language. Because they enable students to face one another and feel secure in society, partial and U-shaped circles are highly desirable. It is crucial to organize the study space to prevent student distractions. One method to improve mental security is to let kids choose their seats (Weinstein, 1996). Therefore, It is critical to improve student mental safety in addition to public safety.

According to several researchers, there is a considerable impact on classroom size in schools. Probably, the decline in student achievement is partially a result of class size growth. Smaller classes have improved student behavior and achievement level (Whittington, 1985). Additionally, Correa (1993) and Burnett (1996) claimed that the rise in class size is to blame for pupils' lower academic attainment. Students may disregard a large group study because they relax and assume they will not be summoned. Students are more likely to interact with the teacher because they are closer to them in a small group setting. Subedi (2000) discovered a negative correlation between Nepali students' high school achievement and class size. At the policy level, the exact class size refers to the individual benefits of adding students

and the additional costs caused by the decline in individual student achievement (Correa, 1993). A manageable class size could provide more opportunities for better classroom interaction.

Few high schools in Nepal have set the objective of enrolling a specific number of pupils in each class. Activities involving learning and teaching are welcome in a classroom setting. The size of the class probably had a significant impact on how well students performed. It is deemed crucial that schools have the autonomy to manage the internal components of designing large classrooms to improve student accomplishment.

Bista (1999) contends that more emphasis should be put on what is occurring within a school's ecology to improve student results. A productive classroom environment and successful teaching and learning practices are supported by reasonable class size (Bista, 1999). Additionally, this would promote teacher-student contact, specific student attention and improved academic performance.

By offering sufficient incentives and readily accessible teacher resources, the anticipated change required in schools is the transition of conventional teaching methods into fresh approaches. There was a positive relationship between the accessibility of resources in high schools and instructors' utilization of such resources (Subedi, 2000). Brush et al. (1999) discovered that providing teachers with a variety of information technology to combine educational activities had a favorable correlation with their students' progress. Similarly, a research study done in Florida by Alkadry and Nyhan (2005) discovered that increasing the number of resources available to students in the classroom led to an improvement in those students' academic performance. Educating teachers about the appropriate use of teaching resources is crucial for enhancing school learning outcomes. Although the availability

of resources differs from school to school, teachers still have to use their resources effectively. It is crucial to teach teachers how to use instructional resources effectively if you want to boost student learning outcomes (Alkadry & Nyhan, 2005). Although resources differ from school to school, teachers are responsible for using their teaching materials effectively.

Subedi (2003) discovered favorable resource results and a detrimental impact on middle-class attainment due to class size. The effect of class size and the intermediate achievement of the classroom are also found to differ significantly among all teachers. Teachers who utilize classroom resources wisely have seen an increase in student achievement.

The classroom size has been significantly impacted by the availability of resources and instructors' utilization of those resources. The size of the classroom has also negatively impacted the success of the class. A large class may likely be able to reach a high degree of success, according to the negative effect of class size. The generalizations of the study's findings can be applied to secondary school pupils in Nepal who are the same age and grade (Subedi, 2003). Additional regulations for resource allocation and utilization in particular courses are suggested, developed, and recommended class size.

There is a demonstrated strong relationship between CMPs and students' academic achievement (Adedigba & Sulaiman, 2020). Teachers' teaching strategies significantly aided the promotion of students' learning strategies. Students typically learn in various methods, including acting and reflecting, using logic and intuition, memorization and visualization, and reflecting and acting. Teachers' methods for imparting knowledge differed; some relied on lectures, while others used discussions or demonstrations; some concentrated on principles, while others used instances;

some prioritized memorization, while others emphasized a more pragmatic approach. But there were inconsistencies between students' learning tactics and teachers' teaching strategies. Students' learning difficulties can come from severe mismatches between students' learning styles and the teacher's instructional methods (Gokalp, 2013; Felder & Silverman, 1988; Lawrence, 1993). When these two don't match, students frequently exhibit boredom and inattentiveness in class and perform poorly on tests. Therefore, they might stop studying and adopt a bad attitude toward learning. As a result, teachers' teaching methods must be successfully matched with students' learning methods. Effective educational practice, aligned with students' learning processes, can reach all students and is not limited to those with a particular learning style.

From the literature above, it can be summarized that students who are taught exclusively using techniques that are incompatible with their preferred learning style may find it difficult to learn well, but they need to be exposed to these techniques to a certain extent to expand their repertoire of study techniques. Teachers are important advocates for learning techniques. Teachers must help their pupils by creating lessons tailored to each one of their unique learning styles and teaching them how to develop more efficient learning practices. To guarantee that pupils are fully engaged, the instructor should create a positive learning atmosphere in the classroom.

Relationship between TSE and CMPs

Teachers' level of self-efficacy in classroom management has been described as evaluations of their ability to carry out classroom management duties successfully despite challenges, such as through interacting with people and groups, establishing rules and standards in the classroom and regulations, as well as managing obnoxious behavior (Pfitzner-Eden et al., 2014). Effectively managing the classroom is crucial

for new teachers' success, wellbeing, and student's academic progress (Lazarides et al., 2020). TSE is an essential element of teachers' professional skills and a crucial factor in determining the effectiveness of CMPs (Lazarides et al., 2018). Instructional methodologies, classroom management, questioning techniques, levels of work ethic, creativity, and answering students' questions are the factors of TSE (Gibson & Dembo, 1984, 2008). Using classroom management strategies is more successful for teachers with stronger self-efficacy beliefs (Goddard et al., 2004). Effective teachers make the best use of tactics to maintain a structured, orderly, and student-centered classroom (Kritsonis & Anthony, 2007). Behavioral issues result from teachers' poor classroom management strategies.

According to Henson (2001), the association between TSE and CMP relates to how a teacher defines or sets expectations in terms of success in a classroom environment. Given that a person's opinions about their success in class might influence their classroom behavior, these correlations may very well be circular. Gibson and Dembo (2008) concluded that when pupils could not answer questions, teachers with low self-confidence rapidly gave up. Teachers who were highly motivated and believed strongly in their potential to succeed spent more time on classroom-related activities and helped substantially weaker students.

According to Sharon (2003), teachers with stronger self-efficacy beliefs performed better than those with lower efficacy beliefs. According to Chambers et al. (2001), developing one's sense of personal efficacy was more important for classroom management than the teacher's personality types. In a similar vein, Woolfolk & Hoy (1990) discovered that the most successful teachers were extremely kind in their evaluations of their pupils and had a favorable outlook on the student-controlling mindset. The teacher is in charge of keeping an eye on the educational setting to

ensure efficient classroom management. The classroom learning environment influences student achievement.

In research done in Nepal, Bista (1999) advocated paying more attention to what goes on in schools since local decisions and goals frequently affect student outcomes. A productive classroom environment and successful teaching and learning practices are both supported by suitable class sizes. Additionally, this supports the provision of individualized student care, student contact with teachers, and improvement in academic performance.

Teachers are in charge of maintaining discipline in the classroom during instructional times. When creating classroom activities and instructional materials, it is crucial to consider the requirements and characteristics of the students. Effective instruction, student needs, and student traits are directly related to classroom management (Jones & Jones, 2001). It is also critical to comprehend the child's socio-economic background for the teacher to include the students' cultural values and family history in teaching and learning. The teacher's responsibility is to plan the educational process in light of the circumstances in the classroom, school, and community (Saricoban, 2006). Motivated teachers are more likely to take the initiative in gaining knowledge of students' socioeconomic backgrounds and cultural values.

Khanal (2016) discovered that attitudes toward student engagement, mathematics teaching and learning, and students' attitudes about mathematics as a subject all impacted students' learning methods. In agreement with the literature discussed above, instructors who showed they could build positive relationships with school administration produced the appropriate classroom performance levels. A teacher's effectiveness in managing a classroom is determined by how they use the

teaching-learning materials, organize the students' seats, collaborate with them, and inspire them. Ensuring a correct seating arrangement is a crucial part of the teaching-learning process to foster student-student and teacher-student interaction. When teaching in the target language, it is crucial to design a seating arrangement that allows students to interact with one another in the target language.

According to the researcher, half or U-shaped circles are quite attractive because they enable pupils to stand face-to-face, making them feel safer in school. Planning the study space is crucial to ensuring that students are not deterred from the teaching-learning activities. One method to improve mental security is to let students choose their seats (Weinstein, 1996). Student behavior and achievement levels have improved with smaller class sizes. Small groups allow for greater student-teacher interaction because the students are closer to the instructor (Blatchford, 2018). It is contended that appropriate technology use, teacher-student interaction, student activity, and seating layout support good classroom management.

According to a study by Adhikari (2020) on instructors' self-efficacy beliefs, the instructional approach had a better self-efficacy score (6.99) than classroom management (6.76) and student engagement (6.96). Teachers with more teaching experience have firm beliefs about their abilities. Institutional school instructors exhibited better self-efficacy in mathematics instruction despite the government's significant investment in public school teachers. I concur that TSE beliefs can be influenced by how teachers have accumulated their teaching experience, professional involvement, pedagogical knowledge, and the school's academic climate.

Although many teachers express great job satisfaction at work, they are also frequently under stress at work (Chaplain, 2008; Schwarzer & Hallum, 2008). According to Locke (1969) happiness at work is characterized as pleasure and

satisfaction gained from job activities, high-performance expectations, and a strong commitment to the classroom and students (Caprara et al., 2006). Low morality (Collie et al., 2012), greater absenteeism and illness, and leaving the profession are all linked to low job satisfaction.

In a school, a teacher is a significant provider of human resources. Comprehending performance satisfaction determinants is critical, given the substantial costs associated with teacher fatigue and attrition. Numerous studies have revealed that instructors are content with the portions of their jobs that involve education and direct student contact (Nathaniel et al., 2016). However, other factors (such as bad weather and yearly assessments based on performance tests) that instructors frequently seem dissatisfied with seem to impact their work performance (Nathaniel et al., 2016; Crossman & Harris, 2006;). Therefore, job satisfaction of teachers play a crucial role in keeping them motivated and engaged in their teaching and learning practices.

The association between stress at work and job satisfaction was discovered to be significantly influenced by the level of TSE (Caprara et al., 2006; Klassen & Chiu, 2010). Due to evolving working conditions (Grissom et al., 2014) and performance expectations of student assessment following accountability standards, additional research is necessary to replicate and expand upon further performance (von der Embse et al., 2015). Teaching can be personally gratifying, but drawbacks include pressure, demands from coworkers, students, and parents, excessive workload, student misconduct, and a lack of appreciation for accomplishments (Burke & Greenglass, 2003). According to Sadeghi and Sa'adatpourvahid (2016), teachers who experience more stress, defined as an adverse emotional reaction to their work, have lower levels of self-efficacy, poorer teacher-student interactions, and lower levels of performance.

High stress levels at work can make it difficult for teachers to achieve fulfillment. Still, the level of fulfillment may be limited by pressure from role ambiguity, a lack of independence, or the frequency or severity of confrontations with students and coworkers (Burke & Greenglass, 2003). Most teachers report that teaching is highly demanding, placing it among the professions with the highest stress levels (Kyriacou, 2001). Teachers in stress may not be able to perform upto the par.

While earlier research (Schwarzer & Hallum, 2008) categorized teachers' work stress as having a unidimensional structure, other studies have indicated that a heavier weight of student behavior and misconduct add separately to the overall teacher stress (Schwarzer & Hallum, 2008). Stress levels from these two sources among teachers have been linked to negative effects on their health and performance at work, such as weariness (emotional exhaustion, physical exhaustion, and diminished self-achievement), disengaged, and withdrawal from the classroom (Kyriacou, 2001; Sadeghi & Sa'adatpourvahid, 2016). This can at times lead to poor classroom management.

Nepali Context Vis-à-vis to TSE and CMPs

As presented in the Nepal Education Sector Analysis report by MOEST (2021), the teachers' quality determines the education system's quality. The system is as good as the teachers. The report states that one of Nepal's urgent reform priorities is to improve education quality. This can happen when Nepal changes teachers' capacity development and management practices. This is where the TSE and classroom management comes into play. Given that past practices are not working, should the Nepal government revisit how it trains public school teachers?

The school system is an important part of the management of a school. Comprehensive planning can determine a school system's physical, environmental,

and educational processes. Not only can a well-organized school system assist students in improving their academic achievement, but it also helps students feel more satisfied with their overall experience in school (Pont et al., 2008).

School management should be closed to the public. Authorities, community mobilization in schools, and service delivery from institution to school level in funding, material provision, and training are tangible results of good governance and the feasibility of working in public schools in Nepal. Participants from the local community create their plans in the context of a school development plan to enhance accessibility, quality, and administration of the community and school education system (Ministry of Finance, 2016; KC, 2018). The SMC and the PTA have been responsible for fulfilling academic, managerial, and performance reports.

A competent leader is the only one capable of accomplishing the work of mediating between students, teachers, and the environment of the school. This is a crucial role for school leadership. Only via strong leadership, it is possible to guide all parts of school management, such as investment, process, and success. Maintaining personal and institutional contact and adapting oneself to one's surroundings and the environment within the school are essential parts of effective leadership that can enhance student learning. It is feasible for school leadership to serve as a bridge between the various actions that take place internally to change (Nepal, 2020). Participation from communities, availability, qualification, responsibility on the part of teachers, and the quality of readily available infrastructure are the inputs that contribute to improved learning successes and results. The school is the channel through which the output is achieved, including classroom management and teaching methods, teachers' professional development, leadership and management of the SMC, PTA, and the principal.

When it comes to the area of education, the government of Nepal allocates a sizeable portion of the country's overall budget to this sector, which results in a very high budget overall. It has devised a range of educational programs and policies, and it has put those policies and programs into effect, all intending to assist people in visualizing the provision of quality education. Keeping in mind the importance of public education, Nepal launched several initiatives to eliminate illiteracy nationwide by 2015. Despite this, the accomplishment did not live up to the expectations of how satisfying it ought to have been. There is still a significant amount of progress to be made. The findings up to this point in the year have demonstrated that despite the substantial investment, the level of funding for education provided by the government is insufficient to sustain the same level of quality as that provided by institutional schools (Kharel, 2017). Within this framework, the administrators and other stakeholders play a critical role in ensuring that students receive a quality education.

Deployment and the re-employment of teachers according to the school's needs has become a critical issue. In addition, the appropriate selection methods before the appointment of teachers continue to be an area where government and other stakeholders, including donor organizations, pay particular attention to (Kharel, 2017). Regarding the provision of higher education, he went on to state his opinion that one of the problems is the lack of talented and knowledgeable individuals in teaching forces and buildings, as well as those individuals' inability to remain employed by the institution. That is to say, the standard of education has suffered because there is a shortage of qualified and experienced educators. Such educators do not remain in the classroom for a greater amount of time. It is anticipated that the qualified teaching force, capable of fulfilling its tasks and obligations up to the appropriate level, contributes to the realization of the objective of providing quality

education (Kharel, 2017). This demonstrates that the country's education is only as good as the quality of the instructors who are part of it.

According to research by Ham (2018), instructors in the focus groups said the training they were taking was inappropriate for their teaching circumstances. They have drawn clear linkages between their sparse application of learned techniques and the lack of training materials in their classroom activities. These results align with the findings of SSRP final assessment report produced by GFA Consulting Group GmbH (2016). According to this report, teachers development and training have not yet had an impact on raising the standard of the teaching and learning process. According to the report, if ongoing support, promotion, review, and material depth are not implemented, teacher training alone does not result in an improved level in the learning and teaching process. This transformation can be linked to both teacher preparation programs and real-world examples (Ham, 2018). The results of the observations highlight that Nepali teachers use textbooks, posters, and the whiteboard extensively as their teaching aids. As a result, one of the fifteen classes had additional resources, such as reading materials, games, wall charts, and other teaching/learning items. The absence of resources has been perceived as a barrier to effective teaching methods (Ham, 2018). The range of resources that teachers identified as being unavailable was extensive. There is not enough money allocated for planning and purchasing, there is not enough room in the classroom to accommodate many students, and facilities like electricity and the Internet are not readily available. They recognized that this had a direct bearing on their capacity to put the training-based skills into practice (Ham, 2018). Teachers reported that in addition to the restricted number of resources, the absence of other resources, such as time, had an impact on

their students' limited capacity to learn and speak English, their level of motivation, the number of classes they had, and their teaching practices.

Teachers in Nepal said they do not believe their government is considering if the SSRP components are appropriately adapted to their country's educational environment. In this study, teachers have stated a wish to participate in, or at the very least display, government research into educational strategies before they are included in upcoming educational changes (Phillips & Schweisfurth, 2014; Ham, 2018). This finding shows that educators share the teachers' skepticism about their government's capacity to make important policy decisions.

Teachers who participated in this study shared their opinions on how quickly another change plan might replace the SSRP's modifications. Teachers used recent instances of policy failure by the government of Nepal to support their ideas. The government's rubbish disposal program and regulation concerning women riding in the front seats of public transportation to promote their safety are two instances of such incidents (Ham, 2018). In both instances, the government declared new legislation but did not carry it through, causing the Nepali populace to disregard the requests. According to educators, the occurrences mentioned above prove that the government is responsible for watching over and upholding the laws they practice (Ham, 2018). The political unpredictability of Nepal and its effects on the government's capacity to create, carry out, and enforce policy changes at any level, including the education system, were connected by Nepali teachers in their discussion of these instances.

According to a study conducted by Parajuli and Das (2013), the instructional and physical conditions of Nepal's public schools have not been sufficiently addressed. Three key issues are plaguing the public schools in Nepal, such as

problems with the physical infrastructure, issues with the quality of education, and issues with effective leadership (Parajuli & Das, 2013). It was mentioned that the student learning environment could be affected by various factors, such as student interactions, student buildings, classrooms, playgrounds, libraries, gardens, and other school facilities. Architects think that the physical layout of schools impacts not only the pupils' ability to learn but also the attitudes they develop (Nepal, 2020). The entire educational system must be implemented in an integrated fashion.

The educational performance of Nepali public schools is subpar when compared to that of other countries. Incompetence, inefficiency, absenteeism, irresponsibility, and a lack of accountability contribute to poor performance in public schools compared to those institutional schools (Nepal & Maharjan, 2015). The SLC test is an important indicator of high school results. Government investment in public schools is increasing, but the effect of Nepali's secondary education is declining day by day. There is a decrease in public trust in public schools in Nepal (Nepal, 2020). Government education programs have failed despite significant educational interventions because of their apparent association with a lack of adequate infrastructure, low gain, and weaker management (Thapa, 2011; Nepal, 2020).

The teacher's quality and the materials and infrastructures used for instruction were clearly different in Nepal between public and institutional schools, according to Thapa (2011). The School Teacher Record Office (STRO), which is in charge of preserving records on public school instructors, has an abysmal track record regarding monitoring and hiring new teachers. As a result, absenteeism among teachers working in public schools is a significant issue (Thapa, 2011). Absenteeism is majorly caused when teachers have low level of self-efficacy.

The administration and school climate affect the TSE and CMPs. Studies have shown that many community schools are poorly managed. For instance, although community schools are given huge swaths of land and buildings, in many cases, it is not uncommon for these institutions to fail to effectively use their available resources and even waste some of them (SMAERC, 2008). Schools are fantastic places to study since teachers and students abide by the rules. However, because many public school teachers do not set a good example by abiding by the school's rules and regulations, the pupils in those schools tend to do the same. The school setting is hence less suited for public schools. Additionally, promoting grades in public schools is easier (Bhatta, 2005). Because of this, many underprivileged pupils who attend public schools do not try very hard to raise their academic performance. The performance and self-efficacy of Nepali teachers are significantly influenced by motivation and teamwork (Thapa, 2011). Public school instructors are paid according to their qualifications rather than how well they perform. Because of this, teachers frequently lack the perseverance and teamwork necessary to work to better the school and the kids.

Social Cognitive Theory and TSE

Bandura propounded Social Cognitive Theory (SCT) in the 1960s. It was called Social Learning Theory but later evolved as SCT in 1986. According to this theory, learning occurs in a social setting through the reflexive and dynamic interactions that individuals have with their surroundings, other people, and behaviors. It is a means of analyzing human understanding, action, motivation, and emotion (Maddux, 2013). People believe they can express their sentiments and self-control and are active actors of their nature rather than merely responding to them.

The components of human access to knowledge that might directly relate to looking at others in social situations and networks, experiences, and external media

impacts are held by SCT, which is used in psychology, education, and communications. According to the theory, people remember a series of events and use this information to refer to their next practice (Bandura, 1986). When they observe a person representing an activity perform that action, they reflect on the sequence of events and use this knowledge to refer to their next practice.

Although the concepts of free will and morality in human conduct have sparked debate as they are fundamental concepts in the social cognitive theory concept, they include multiple assumptions (Bandura, 1986; Howard & Conway, 1986; Williams, 1992). Firstly, humans possess strong embodying abilities that enable the building of internal models of experience, the development of unconventional acts, the hypothetical evaluation of such actions through the vision of the result, and the interlinking of complex concepts and experiences of others. Secondly, preconceptions influence the majority of human acts, which are deliberate or goal-oriented (expectations, predictions, etc.). The strength of embodied beliefs determines this position of conscious conduct. Thirdly, humans are capable of self-observation, introspection, and evaluation of their thoughts and experiences. These self-perspective, meta-conscious activities pave the way for self-awareness and behavior. Fourthly, People's ability to exercise self-control through affecting their behavior and modifying or selecting contextual circumstances that influence their behavior. People adopt their moral code, assess their behavior in light of these principles, and develop incentives to promote and guide morality. Finally, people learn indirectly by seeing and reacting to other people's actions. People's need for trial and error is considerably reduced by visual and interactive learning, which allows for faster acquisition of integrated abilities that would not be achievable if people had to take action and deal

directly with the repercussions of their actions (Bandura, 1986; Howard & Conway, 1986; Williams, 1992). Constructivist theory implies strong classroom engagement.

Based on the theoretical assumptions, Bandura affirmed that self-efficacy is an important part of SCT. Within the framework of an explanation model of human behavior that he constructed, it was demonstrated that self-efficacy has a causal influence on expected behavior outcomes but that this influence does not work in the opposite direction (Bandura, 1986). Beliefs about one's level of self-efficacy affect motivational, cognitive, emotional, and decision-making processes. It depends on an individual's thoughts regarding their efficacy as to whether they think positively or pessimistically and if how they think is self-enriching or self-defeating. These beliefs are extremely important in the process of autonomic regulation of motivation, which occurs through establishing objectives and anticipating results (Mark et al., 2011). The idea of self-efficacy is at the center of the SCT approach (Nabavi, 2012). Additionally, people take on projects based on their perceived competence and/or past successes.

The SCT places a lot of stress on self-efficacy beliefs because it influences how motivated and intelligent students are in learning (Pajares, 1996; Schunk, 1995). Self-efficacy inspires self-regulation. It has to do with a person's level of self-assurance in their capacity to successfully control the actions or occurrences that occur in their lives. These beliefs originate from a person's belief that they possess cognitive abilities, motivation, and the means necessary to act (Wood & Bandura, 1989). Self-efficacy can influence cognition and behavior in various ways, including task choice, goal setting, efforts and perseverance, achievement, and learning (Betz, 2007; McCormick & Martinko, 2004). Teachers' task-choice is critical in students learning and growth.

Self-efficacy theory is the most recent in a series of autonomous or practical skills that has resulted in countless psychological, sociological, and human research over the last few decades (Bandura, 1997). Self-efficacy is the ability to initiate and persist in learning and discipline in subjects that are influenced by judgments and expectations about abilities and conduct, as well as the ability to adapt successfully to environmental needs and difficulties. According to Maddux (2012), These same factors play an essential part in the resolution of psychological and emotional disorders, as well as in the effective intervention of emotional and behavioral problems, according to the concept of exertion.

Initially, self-efficacy was defined as a type of waiting period that focuses on a person's belief in their ability to complete a specific behavior or collection of behaviors required to achieve a specific result (Bandura, 1997; Qusay, 2020). However, the term "self-efficacy" has been broadened to include "people's views about their power to control events that affect their lives" and "their ability to combine inspiration, cognitive resources, and teachings needed to regulate job needs" .

As a result, self-efficacy assessments are concerned with "judgments of what one can do with whatever talents one possesses" (Qusay, 2020). According to Bandura (1977), people analyze, measure, and share a range of sources of information relating to their strengths, as well as their behavior and efforts. As a result, performance or efficiency expectations are generated, determining the choice of goals and behaviors aimed at the goal, spending money on goal-achieving effort, perseverance in the face of adversity, and emotional experiences.

According to Armor et al. (1976), the RAND Corporation is the most prominent institution that has measured the notion of self-efficacy in teachers. A study was carried out in which school and classroom elements and their relationship

to students' reading scores in an urban area of Los Angeles, California, were investigated. According to the findings presented by the RAND study, educators with higher self-efficacy levels contributed to improving students' reading scores. Because of this growing influence on education, the concept of TSE has emerged with SCT providing a theoretical framework.

Attribution Theory and TSE

Fritz Heider's book, entitled "The Psychology of Interpersonal Relations (1958)", was an attempt by the author to investigate the nature of interpersonal interactions. Heider strongly emphasized the concept of "common sense" or "naive psychology" throughout the book. He argued that humans analyze, explain, and observe meaningless actions as part of their theory. Heider discovered that combining the meaning of events in human behavior into two categories, internal (personal) and external (status) features, was a beneficial way to organize the meaning. This is despite the fact that different people have different interpretations of events in human behavior (Heider, 1958). When an internal annotation is made, the cause of certain conduct is attributed to one or more of a person's characteristics, such as their power, personality, feelings, efforts, attitude, or condition. When an external annotation is made, the cause of a specific behavior is described concerning others' behaviors, such as those involving work, other people, or luck (whether the person producing the behavior did so due to environmental or social status). Both of these sorts result in quite distinct perceptions of the individual engaging in the behavior (Aronson et al., 2018). For instance, how a student or a teacher explains the results of an event, such as whether it was a success or a failure, in an off-hand manner might affect how they react to the results of the event. One of the tenets of the attribution theory is that humans have the propensity to attribute causes to gather knowledge that might help

them decide how to behave. As a consequence, attribution theory can provide light on how students and teachers react to the achievements and failures of their charges while in the classroom.

People are incentivized to discuss the reasons behind their acts and behaviors (Moskowitz, 2005). According to social psychology, attribution refers to the process by which humans can explain moral reasons, and attribution theory is the name given to the examples that illustrate this process (Kassin et al., 2010). The field of study known as attribution theory examines how individuals interpret past occurrences and how their ideas are connected. The attribution theory identifies three primary factors as the sources of a problem. The locus of the seen reason is known as the locus. Suppose the source of the problem is found to be internal (dispositional). In that case, the experience of success bolsters emotions of self-confidence and self-efficacy, while the negative effects of failure could be mitigated. Second, when something is stable, it is considered a constant or a force that remains powerful over time. Because when people position their failures into fixed factors like the difficulty of a task, they would expect to fail in that task in the future, it is incredibly near to expectations and objectives.

Last but not least, controllability refers to whether or not a person has a strong desire to exert control over the underlying reason. A person may experience feelings of humiliation, embarrassment, and rage if they fail to complete a task they believe they cannot complete (Heider, 1958). The causes are applied by Martin and Baldwin (2008), who states that in a classroom setting, it is essential that teachers assist students in accepting or acknowledging their hard work or effort as the major predictor of their academic achievement. Teachers can have a direct influence in developing learners' internal local of control by applying student-centric teaching-

learning methodologies. Therefore, attribution theory is essential in explaining the teachers' role in classroom management.

Constructivist Theory and CMPs and TSE

Constructivists believe that learners construct their knowledge as they understand and interact with the world around them (Palincsar, 1998). Constructivism is based on the learning theories proposed by Jean Piaget, Lev Vygotsky, and John Dewey (Gibbons, 2003). According to their constructivist learning theories, constructivist academics usually assert that students actively participate in understanding their learning environment. A further point by Gibbons was that "constructivist learning is focused on students' active engagement in problem-solving and application of critical thinking during a learning experience that they find relevant and interesting" (p. 372). To solve difficulties, the student connects previously taught material with new information, primarily learned during a group activity, with the teacher acting as a facilitator (Gibbons, 2003). According to Delpit (1995), constructivism must be seen as a method of instruction depending on the cultural background of the students.

According to Oliver (2000), the major task of a teacher in constructivism is to cultivate a collaborative environment for problem-solving in which learners and students take a proactive role in ensuring their learning. Bandura (2008) substantiates that teachers with a higher level of self-efficacy follow the student-centric teaching-learning methodology aligning with constructivist theory. Likewise, for classroom practice, Tam (2000) suggested several features. A feature of the constructivist classroom is that knowledge is shared between students and teachers. Students and teachers share authority in the classroom.

Furthermore, the teacher's role is of a facilitator or a guide. Finally, learning groups consists of small yet heterogeneous students. Despite the numerous advantages of constructivism, it is argued that a lack of structure might be counterproductive for some learners. Some students require a more structured classroom setting to reach their potential.

Research Gap

The study identifies the association between the TSE and their CMPs. Teachers' objectives and actions at school are determined by their values. Values can also promote a sense of self-efficacy and subjective well-being. Important academic outcomes and workplace well-being (on students' achievement and motivation) are significantly influenced by TSE, which is their confidence in their capability to manage tasks, responsibilities, and challenges related to their professional work (Barni et al., 2019). Teaching can be personally satisfying, but it also comes with the possibility of being subjected to stress and demands from supervisors, coworkers, students, and parents, as well as a high workload, student misconduct, and a lack of recognition for accomplishments accomplished (Burke & Greenglass, 2003). Teachers who report higher levels of teacher stress, which is characterized as an unpleasant emotional reaction to their work, have lower levels of self-efficacy, weaker relationships with their pupils, and lower levels of performance than their colleagues (Sadeghi & Sa'adatpourvahid, 2016). Teachers who experience high stress levels at work cannot find fulfillment there. Still, the degree of fulfillment may be muted by pressure from role ambiguity, a lack of independence, or the frequency or intensity of conflicts with students and coworkers (Burke & Greenglass, 2003). It has been discovered that TSE plays a significant role in school psychological research because of the effects that it has on teaching efficiency, teaching habits, and student academic

accomplishment (Klassen & Tze, 2014). According to a plethora of studies, educators with a high degree of self-efficacy reported greater job satisfaction, lower stress associated with their profession, and fewer challenges in dealing with student misconduct (Caprara et al., 2003). As a result, having a fundamental grasp of self-efficacy may prove to be substantial assistance when trying to improve the well-being of educators and the efficacy and efficiency of school growth.

Another gap based on the reviews is that there is not much research on TSE and how it influences classroom management in the setting of Nepal. Thus, it is critical to examine the relationship between their practices in this area. It provides novel knowledge in the field of academic research. The researcher sought to ascertain the connection between classroom management techniques and TSE in Nepal's secondary schools. According to earlier research, the researcher discovered that, although the School Teacher Record Office (STRO) is in charge of maintaining records of public school instructors, monitoring and recruitment of teachers in this system are highly subpar. As a result, a significant issue in public schools is teacher absenteeism.

Although most public schools seem to have older buildings and structures than institutional schools, they nonetheless employ cutting-edge teaching tools like computer and science labs (Bhatta, 2005). The researcher found the root of community school teachers' low efficacy, which leads to poor classroom management. Public school teachers' remuneration is based on their qualifications, not their effectiveness. Teachers lack the perseverance and teamwork to improve the school and the students.

Nepal's public schools do poorly academically in comparison to other countries (Nepal & Maharjan, 2015). Due to incompetence, inefficiency, absenteeism,

irresponsibility, and a lack of accountability, public schools do poorly compared to institutional schools (Nepal & Maharjan, 2015). An important predictor of high school performance is the SEE test. Public faith in public schools is eroding due to declining results despite increased government investment in public schools (Nepal, 2020). Despite extensive educational efforts, government education programs have been a failure. Public schools are frequently linked to bad outcomes, subpar facilities, subpar instruction, subpar management, and inadequate money (Thapa, 2011; Nepal, 2020). This is an unexplored area and could be justified with the connection between TSE and CMPs.

Without considering their subject areas, in-service or pre-service teachers have been used to study various aspects of teacher efficacy in the literature, including enthusiasm, competence, behavior, attitude, motivation, students' achievement, and their beliefs in their self-efficacy (Burke & Greenglass, 2003). According to the study, teaching can provide personal fulfillment. Still, it can also result in pressure and demands from managers, coworkers, students, and parents paired with excessive labor, student misconduct, and a lack of acknowledgment for accomplishments and work (Burke & Greenglass, 2003). According to Sadeghi and Sa'adatpourvahid (2016), teachers who experience more stress—defined as an adverse emotional reaction to their work—have lower levels of self-efficacy, poorer teacher-student relationships, and lower levels of performance.

TSE is a factor that plays into how well they manage their classroom. Managing a classroom means building a learning climate that is both secure and stimulating for the students. The phrase refers to the processes that take place in a group of pupils and the results of these processes. It also involves a teacher's personality, abilities, and professional ethics that are designed to bring out all of the

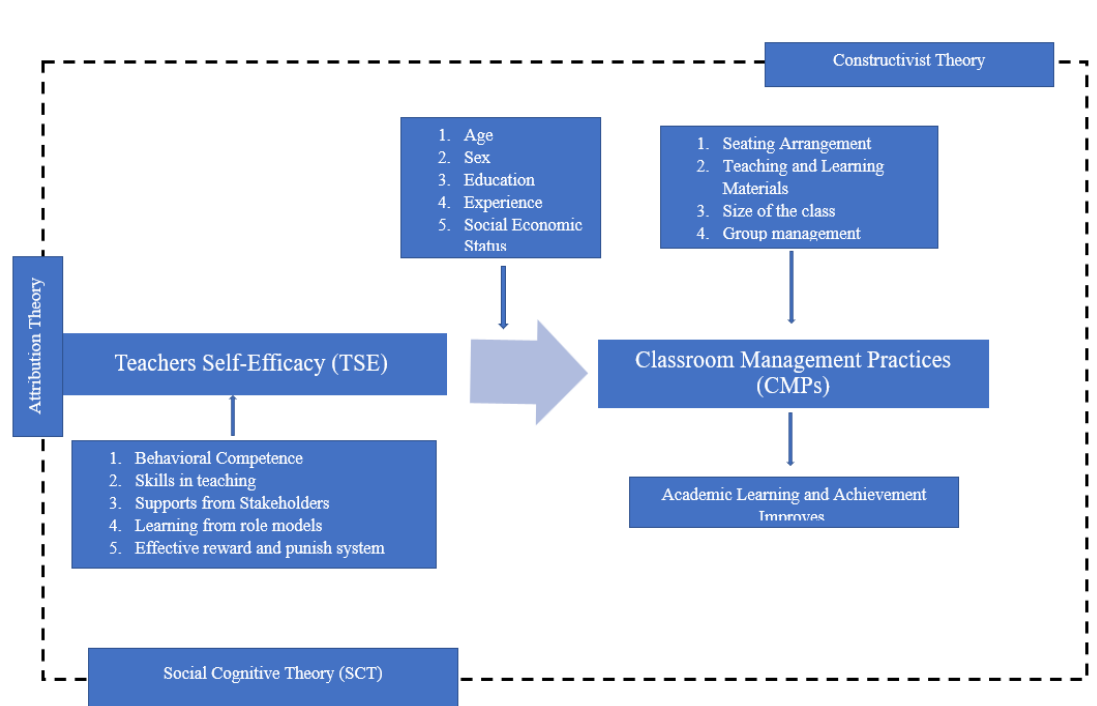
professional roles that they play. Effective classroom administration is inextricably tied to all of the actions researchers take intending to create an engaging educational setting (Martin & Baldwin, 2008). They argue that three styles of teacher classroom management can be categorized as participant, non-intervening and collaborative. Teachers with good work ethics are better at applying classroom management techniques than teachers with low self-esteem (Goddard et al., 2004). Teachers tend to apply CMPs which are structured, well-organized, student-oriented, and more responsive to the ideas proposed by students (Kritsonis & Anthony, 2007). In this way, instructors who are less skilled in classroom management and who provide lower amounts of praise tend to have higher levels of bullying in their classrooms, which can also contribute to behavioral issues (Kratochwill & Shernoff, 2007). Gibson and Dembo (1984) conducted a case study to evaluate the various approaches to classroom management utilized by high-performing and low-performing teachers (Gibson & Dembo, 1984). According to what they found, teachers with low efficacy are more likely to give up easily when pupils cannot answer questions fast and point the finger of blame at the students themselves. Conversely, highly effective educators spend most of their time on academic activities, have the propensity to act as mentors for students who struggle academically, are less critical, and encourage students to excel. A thorough investigation is required for this matter.

There are not many research studies on TSE and how it influences classroom management in the setting of Nepal. Thus, it is critical to examine the level of factors contributing to the relationship between CMPs and TSE in Nepal. It offers a new perspective on improving students' academic learning and achievement in public school education in Nepal.

Conceptual Framework

The conceptual framework provides a “map” for a research study. Regoniel (2015) states that the conceptual framework steers the whole research process. According to McGaghie et al. (2001), the conceptual framework lays the groundwork for the presentation of research questions that serve as the impetus for the investigation. The goal of social cognitive theory is to gain an understanding of human thought, behavior, motivation, and emotion. The theory is based on the assumption that humans can engage in self-regulation and self-reflection and actively alter their surroundings instead of merely reacting to those environments (Maddux, 2013). Likewise, the constructivist theory posits that students actively participate in understanding their academic environment. Students' participation is at the center of teachers' CMPs. Furthermore, attribution theory clarifies how teachers and students react to the achievement and failures within their classroom setting. Attribution theory connects the dots between the belief about one's capability and their actual community of practice. In this connection, the study has tried to explore teachers' cognition towards their capacity to manage the classroom effectively. The following pictorial diagram shows the association between the dependent and independent variables.

Figure 1
Conceptual Framework



The conceptual framework is based on the variables gathered through the literature review. TSE is an independent variable, while classroom management is a dependent variable. The research needs to assess the effectiveness of teachers in classroom management if it is to measure TSE. It has been determined that those with a high sense of efficacy are more inclined to perceive challenging work as something that should be mastered rather than as something that should be avoided. These are measured by individual items such as how competent a teacher feels in teaching a difficult subject to how well prepared a teacher is before going to a class. As stated in the literature, the higher TSE, the better CMPs. The improved CMPs contribute to improving students' academic achievement of learning (Mark et al. 2011). They further reinforced that the teachers with higher self-efficacy take on more challenging tasks and deliver the lessons effectively. Teachers with poor self-efficacy are more

likely to avoid difficult jobs, focus on their shortcomings, and produce unfavorable results (Mark et al., 2011).

Chapter Essence

This chapter explored the importance of TSE and CMPs. In addition, it has also discussed the relationship between these two constructs and their effect on student's academic achievement and learning. The factors that contribute to TSE and CMPs were discussed in detail. The chapter also discussed the relevance of constructivism, social cognitive, and attribution theories. Finally, the chapter also provided a conceptual framework that supported in guiding this study.

CHAPTER III

RESEARCH METHODOLOGY

This chapter outlines the research plan used in this study to find the level and relationship between TSE and CMPs. This chapter helps readers of this thesis understand how the research was conducted. This chapter starts by reviewing the philosophical assumptions and how they relate to the overarching goals of the study. Then I discuss the research design, including sample size, sampling methodology, instrument or tool construction, tool reliability and validity, data collection procedures, and data processing methods with measurement.

Philosophical Considerations

Philosophical assumptions influence how a study seeks information to answer research questions. Creswell and Poth (2018) underscored the significance of understanding the underlying assumption as they direct any research study. A researcher plans how to investigate an issue, formulates research questions, designs a study, and identifies and analyzes the data collection methods based mainly on or guided by these assumptions. Mertens (2015) agrees that when a researcher has a clear understanding of research paradigms, it makes them a lot easier to select an appropriate methodology to carry out the research.

Research philosophy is associated with the knowledge, assumptions, and nature of the study. It ensures that knowledge development occurs through a scientific process (Moroi, 2021). The philosophical level of a research method refers to the assumptions it makes about the world, including mentality, accuracy, the nature of knowledge, and arguments for knowledge. The approach taken may be determined by the environment and the nature of the issues being addressed. The approach used may

be influenced by researchers' experience, philosophy, and personal values or beliefs (Denzin & Lincoln, 2011). Consistency between the objective of a research study, the research questions, the methods used, and the researcher's own belief is the important underpinning and premise for any research endeavor. The philosophical assumptions of this study are as follows.

According to Creswell and Poth (2018), ontology is the study of reality's nature. The ontological assumption of this study is post-positivism. In other words, the researcher constructed foundation level queries concerning whether teachers' self-efficacy and classroom management are associated through a single verifiable reality. This reality was largely based on the statistical results yielded from the data, which is free from a researcher. In searching for relevant philosophical considerations, the researcher understood that there are two different schools of thought regarding knowing the realities. Both post-positivists and non-positivists can be found working in the field of research. Some researchers lean more toward post-positivism. Post-positivists argue that the material world is the primary ontological stance because it is the only one that can be proven to be universally true and because it can be precisely quantified through experiments and surveys. This is what the researcher believed concerning this study regarding the relationship among factors contributing to TSE and CMPs that can be precisely quantified and measured. This study determines the nature of the connection that exists between TSE and the CMPs that are associated with it. Objective measurements can be taken of both TSE and CMPs. Hence, the researcher decided that the post-positivist approach is the relevant ontology for this research. The post-positivistic or empiricist paradigm employs objective reality (Cresswell, 2009). The ontological assumption of this study is a singular reality. The

reality was statistically driven and not open to multiple interpretations. The survey findings from NTSE and CMPs are single and external to the researcher.

Likewise, the epistemological assumption concerned with the nature and scope of knowledge (Creswell & Poth, 2018) of this study is objectivity. The epistemological assumption of this study was that the perceptions of TSE and their CMPs could be acquired through empirical observation and measurement. The role of the researcher in this context is observant while exploring the factors contributing to TSE and CMPs. As a result, it was an objective means of collecting data and communicating the nature of the information sought. The participants and the researcher's interests and values did not influence the data that were collected in any way.

Furthermore, this research methodology was informed based on ontological and epistemological assumptions. The methodology has to do with philosophies that guide the collection of data and determine methods. Given that the researcher's ontological stand is postpositivist and that the epistemology is objectivity, the researcher applied this study with a quantitative and cross-sectional research approach.

In a nutshell, a researcher's view on ontology dictates their epistemology and methodology (Moroi, 2021). The researcher's postpositivist (single reality) worldview guided that the nature of knowledge is objectively found, for which the researcher used the quantitative research method.

Research Design

This study used a cross-sectional survey to examine the causal relationship between TSE and CMPs. In this study, the researcher has explored the association between TSE and CMPs in the context of Nepali public secondary level teachers. The

study of the relationship between TSE and CMPs helped me explore and describe the degree of association between these two variables and their effect on each other.

Therefore, my study was both explorative and descriptive; it was explorative in that it examined the relationship between TSE and CMPs, and it was descriptive, as it explained the study variables and described the level of TSE and their CMPs.

According to Fowler & Cosenza (2009), surveys are used to obtain numerical data about respondents' attitudes, opinions, and behaviors. As a result, primary data was gathered through two structured survey questionnaires: Nepali Teachers' Self-Efficacy (NTSE) and CMPs from the secondary level public school teachers. These instruments measured teachers' perceived belief in their ability to bring about desired results and their classroom management practices.

Study Area, Population and Sample

The population for this study was the secondary-level public school teachers from the Kathmandu Valley. As per the new government federal structure, the Kathmandu Valley is part of Bagmati Province (Province 3). While choosing the study site, the researcher considered the heterogeneity of teachers (from geographical, linguistic, and socio-cultural) and the student-teacher ratio in public schools. Teachers in Kathmandu come from all linguistic, cultural, and ethnic diversities giving a true taste of heterogeneity. With a population of over 2.5 million, the Kathmandu Valley sees 4% of annual population growth, making it one of the fastest-growing metropolitan cities in South Asia. According to the Education Sector Analysis report of 2017, the population living in urban parts gives an important context indicator as demand for education is more in urban areas than in rural areas (NIRT, 2016). The student-teacher ratio in the Kathmandu valley is the lowest (1:21) compared to the mountain (1:35), hill (1:34), and Terai (1:52).

The study population was the number of public secondary level teachers teaching in a community school in three districts: Kathmandu, Lalitpur, and Bhaktapur. For the purpose of this study, teachers of all contract types were considered to be the population. The study did not include teachers from TVET programs. Teachers were chosen irrespective of their experience, socio-economic status and personal characteristics. The study reviewed the flash report from 2019-20 to identify the total number of secondary level schools and a total number of teachers in the Kathmandu valley. The report published by MOEST (2020) shows the data in Table 1.

Table 1

Total Number of Secondary School Teachers

Districts	Number of Teachers	% of Teachers
Lalitpur	660	19.26
Bhaktapur	505	14.74
Kathmandu	2262	66.01
Total	3427	100%

The study selected only community schools to know the level of and relationship between the TSE and their CMPs. So, a total number of secondary school teachers were identified as the total population for this study. According to MOE (2020), there are 3427 secondary-level public school teachers' all sources (permanent, temporary, rahat, PCF, community private sources etc.) in the Kathmandu Valley. To select the sample size, I used Yamane's sample size determination formula)Yamane, 1967(.

$$N_0 = \frac{N}{1 + N * \alpha^2}$$

Where,

N_0 =Sample size

N = Total population = 3427

α = Level of significance = 0.05

$$N_0 = \frac{3427}{1 + 3427 * 0.05^2}$$

N_0 = 358 teachers

This sample size was distributed across the districts based on the percentage of their share of the total population. Of the 358, 19% of the sample size was allocated to Lalitpur, 15% to Bhaktapur, and 66% to Kathmandu. The table with the population and sample is below.

Table 2
Population and Sample

Districts	Number of Teachers (N)	% of Teachers	Sample Size (n)
Lalitpur	660	19.26	68
Bhaktapur	505	14.74	53
Kathmandu	2262	66.01	237
Total	3427	100	358

The study followed the cluster random sampling technique to select the schools and teachers. The study covered all three districts of the Kathmandu valley – Kathmandu, Lalitpur, and Bhaktapur, so the study sample was divided based on the total number of teachers distributed into the three districts.

Table 3
Sampling Framework with Name of Local Governments and the Public-School Teachers

District	Local Governments with 20 or more secondary level schools	Number of Teachers
Lalitpur	Godawari Nagarpalik	115
	Ward 1-14 Lalitpur - Lalitpur Mahanagarपालिका	259

	Ward 15-28- Lalitpur Mahanagarपालिका	145
	Mahalaxmi Nagarpalika	76
	Bagmati Gaunpalika	28
	Konjyosom Gaunpalika	16
	Mahankal Gaunpalika	21
Total Lalitpur		660
Bhaktapur	Bhaktapur Nagarpalika	237
	Changunarayan Nagarpalika	66
	Madhyapur Thimi Nagarpalika	100
	Suryabinayak Nagarpalika	102
Total		505
Bhaktapur		
Kathmandu	Budhanilkantha Nagarpalika	186
	Chandragiri Nagarpalika	145
	Kathmandu Mahanagarपालिका	
	Ward 1-4- Kathmandu Mahanagarपालिका	202
	Ward 5-8- Kathmandu Mahanagarपालिका	309
	Ward 9-16- Kathmandu Mahanagarपालिका	332
	Ward 17-24- Kathmandu Mahanagarपालिका	116
	Ward 25-32- Kathmandu Mahanagarपालिका	165
	Tokha Nagarpalika	107
	Dakshinkali Nagarpalika	53
	Gokarneshwor Nagarpalika	178
	Kageshwori Manohara Nagarpalika	107
	Kirtipur Nagarpalika	85
	Nagarjun Nagarpalika	93
	Shankharapur Nagarpalika	38
	Tarkeshwor Nagarpalika	146
Total		2262
Kathmandu		
Grand Total		3427

The study used cluster sampling to identify the respondents. According to Babbie (2015), cluster sampling is used when there is an impracticality in finding a list of items composing the total population. In terms of the bases for creating clusters, the researcher used the similarity of characteristics or size in terms of the population of teachers in local government bodies. This resulted in dividing Kathmandu and Lalitpur metropolitan cities into additional clusters to match the size of local government bodies. Thus, as a multi-stage cluster sampling, the local government bodies from three districts were categorized as clusters. Given the number of teachers in Lalitpur and Kathmandu metropolitan cities, Lalitpur metro was divided into two clusters, and Kathmandu Metropolitan City was divided into five clusters. The local government bodies were then randomly selected using a formula in a Microsoft Excel spreadsheet.

From the list above, the following local government bodies were randomly selected. I used the following formula in an excel spreadsheet to get the random numbers. If the randomly selected local government body did not have a sufficient sample size, I moved on to the next round of random selection and selected another local government body. The formula used for random selection was = Index (range, Randbetween(lower and upper number, range).

Table 4

Randomly Selected Local Bodies and the Total Sample Size

District	Randomly selected Local Govt. Bodies	Number of Teachers	Total Sample size to match
Kathmandu	Kageshwori Manohara	107	of 237
	Chandragiri Nagarpalika	145	
Kathmandu Subtotal		252	
Sample Size			
Lalitpur	Mahalaxmi Nagarpalika	76	

Lalitpur Subtotal		76 of 68
Sample Size		
Bhaktapur	Changu Narayan Nagarpalika	66
Bhaktapur Subtotal		66 of 53
Total Sample Size		394 of 358

The researcher then collected data from 390 teachers out of 394 from the local government bodies. Four teachers did not fill out the questionnaires. In cluster sampling, all available participants must be surveyed. The total number of teachers in randomly selected four primary sampling units, in this case, municipalities, is 394. Despite the study's sampling size being 358, the researcher collected data from all 394 teachers with 390 valid responses back.

Construction of Instruments

The study used structured questionnaires to identify factors contributing to, measure the level, and explore the relationship between TSE and CMPS. The structured questionnaires were developed using the e-Delphi technique. The following section outlines the processes that the researcher followed in constructing questionnaires.

Delphi techniques help achieve consensus on multiple opinions. Experts with expertise and interest in a field can be selected as a panel. They are invited to provide feedback on the research questions through multiple rounds, and their feedback is an unbiased reflection on contemporary knowledge (Keeney et al., 2011). Historically, a paper-based questionnaire was used to collect information from experts as part of the Delphi processes. As with the evolution of research methods, digital methods, called e-Delphi methods, are being used to gain consensus from a panel of experts. The e-Delphi is a method for organizing the communication processes of a group to deal

with an issue (Green, 2014). The e-Delphi technique permits the participants (experts) to engage and communicate with the researcher at their own pace and time until a consensus is reached. Bardhan et al. (2011) underscored the importance by stating how the e-Delphi method is crucial in this era of technology for conducting evidence-based research because it allows the experts to submit their opinions and it enables participants to post their opinions and accumulate their thoughts online. The e-Delphi technique allows researchers to carry out research by recruiting experts from far-flung regions, which ensures geographic diversity of experts and their opinions. The researcher wanted to interview experts from outside of the Kathmandu valley; interviewing them was possible only online. Additionally, the e-Delphi methods are famous for quicker responses from experts, ensuring anonymity, and reducing costs or resources (Boulkedid et al., 2011). Therefore, to develop and validate Nepali teachers' CMPs and their self-efficacy instruments, the study used the e-Delphi technique.

Design of the e-Delphi Technique

The first stage of this study was to set up a virtual discussion with five experts who were purposively selected based on their proven experience in teaching at the secondary level. During the first stage, I hosted virtual discussions with subject matter experts and gleaned information related to TSE and CMPs. This stage is similar to the classical Delphi method. As opposed to post-mail, as in classical Delphi, I used e-mail, and post-mail, as in classical Delphi, I used e-mail and online survey platforms such as google form and zoom to collect data. This is why it is called the e-Delphi method. Donohoe et al. (2012) stated that achieving consensus through the Delphi method remains disputed in the literature. Diamond et al. (2014) remarked that 75% as the median threshold would provide enough coverage to have a reliable tool. As

such, for this study, at the outset, it was decided that the threshold for consensus would be 75% or higher.

Experts for e-Delphi Processes

For this study, the experts were selected at two levels; 1) five experts to participate in the qualitative discussion to unpack the issues related to TSE and CMPs 2) 30 expert teachers who participated in the subsequent two rounds to rate the questionnaires developed as a result of the first qualitative discussion. The participants in the qualitative discussion had three inclusion criteria met; 1) gender, 2) subject-specific heterogeneity 3) workplace location. The experts at the qualitative discussion comprised two female and three male teachers teaching mathematics, science, English, and social studies within and outside of the Kathmandu Valley. The participants were selected for rounds 2 and 3 based on their years of experience and subject-specific diversity. The researcher emailed the experts to recruit and participate in the e-Delphi processes and included items and required information about the consent. The participants were explained in detail about the impact of their participation in the study. They were told that the participation was voluntary and that their biographic details would not be shared. As needed, a follow-up call was made to clarify any confusion. Given their contribution to Nepali public education, the researcher knew the experts. For anonymity, the participants were not introduced to each other to ensure unbiased opinions.

To select 30 experts, the criteria of choice were; a) secondary level teachers with at least over ten years of teaching experience, b) teachers from both rural, semi-urban, and urban parts of Nepal who have ten years of experience, c) interested in the research topic and willing to participate in two rounds to rate the questionnaires to reach a consensus. A diversity in panel representation could provide an unbiased

reflection of the contemporary knowledge or perception of the TSE and CMPs (Keeney et al., 2011).

Data for Instruments Construction

The data were collected in three rounds from November 2021 to February 2022 in the form of a virtual meeting, an online survey, and through email communication.

Round 1: Exploring contents and issues. Round one was conducted through a series of virtual meetings with experts. The experts were contacted via email and requested to participate in a meeting to explore the issues and contents relating to TSE and CMPs. The email included details about my research ideas and the specific points that the meeting would discuss. The researcher held five 1.5 hrs. meetings to understand the issues and contents by asking prompting questions. The virtual meetings were recorded and transcribed. The researcher analysed responses to draft questionnaire items to proceed with round 2.

Round 2: Consensus on the draft questionnaires. After round 1, 30 experts were administered an online survey and requested to rate the items on a five-point liker scale (1- Strongly Disagree (SD), 2- Disagree (D), 3- Neither agree nor disagree (N), 4- Agree (A), 5-Strongly Agree (SA)). Follow-up strategies such as phone calls, email reminders, and social media messages were employed fortnightly. Data from round 2 were quantitative. Therefore, descriptive statistics were used to note a consensus of 75% or greater on each benchmark. The Microsoft Excel database calculated the sum, mean, and percentage.

Round 3: Consensus on the questionnaires. Items that did not achieve a minimum consensus level of 75% were removed in round 3. The panel members were provided with the results and asked to rate the retained items from Round 2.

Data from round 3 were quantitative. Therefore, descriptive statistics were used to note a consensus of 75% or greater on each benchmark. The sum, mean, and percentage were calculated in the Microsoft Excel database.

Instruments Construction Finalization After the e-Delphi Rounds

Round 1: Qualitative discussions were held with five experts. The data were transcribed, analyzed through content analysis, and created items for questionnaires. Content analysis helps the researcher to categorize and summarize behavioral and verbal data. From Round 1, 34 items for the NTSE questionnaire and 64 items for the CMPs questionnaire were drafted. Out of 30 experts, 26 responded with an 86% response rate.

Round 2: A total of 98 items were administered, of which 34 were from NTSE and 64 from CMPs. A total of 26 questionnaires were returned in Round 2. During this round, 27 (79%) items from TSE and 48 (75%) items from CMPs achieved consensus at 75% or above. Table 2 summarizes the items and their consensus percentage for TSE questionnaire, and table 3 summarizes the consensus percentage for CMPs.

In Round 2, the e-Delphi technique analyzed the data gathered using Microsoft excel. The average rating number and corresponding % average were used to calculate the consensus percentage. Based on the average percentage for each question, TSE5, TSE8, TSE11, TSE 21, TSE22, TSE23, and TSE31 were rejected based on the NTSE scale. The remaining items from NTSE questionnaire were found to have a 75%, or above, consensus level among the experts; therefore, these items were taken to Round 3 from the TSE category. Likewise, items from the CMPs questionnaire such as CMP1, CMP2, CMP3, CMP8, CMP12, 16, CMP17, CMP20, CMP23, CMP24, CMP25, CMP34, CMP35, CMP36, CMP37, CMP38, CMP45, CMP47, CMP49 did

not achieve the consensus at 75%, therefore were rejected. The experts did not rate favorably the items such as “I use chalk and duster for my classroom engagement,” “I read newspapers to be aware of contemporary issues,” and “punctuality of classwork.” Likewise, in the classroom management practice questionnaire, the experts did not rate items such as assigning seats, appointing classroom representatives, punishing students, using technologies, and becoming gender-sensitive in the class favorably.

Round 3: In Round 3, based on the rating received during Round 2, 29 items for NTSE and 25 items for CMPs were administered. To refine the items for Round 3, I considered experts’ feedback during Round 2, and questions with similar spirits were merged. That is how even from the accepted items of classroom management, 24 uniquely valuable items were administered. Since the 100% consensus was achieved at this round, no further amendments were put forward. With the conclusion of the e-Delphi processes, two questionnaires, Nepali Teachers’ Self-Efficacy Scale (NTSE) and CMPs (CMP), were created.

Pilot Study and Data Collection

Before the final data collection, the researcher pilot-tested the instruments developed through the e-Delphi Technique. The purpose of the pilot test was to find out any issues that may exist in measuring the instruments before the final data collection. Hassan et al. (2006) stated that a pilot study provides the groundwork for a larger research project. As Lackey and Wingate (1998) stated, 10% of the total sample size would provide representation to ensure the reliability of the tools. Therefore, out of the total sample of 3, the researcher administered questionnaires to 40 secondary level teachers from around the Kathmandu Valley. The pilot study did not bring any major issues, but a couple of pilot study respondents remarked that the Nepali

language was too formal to understand. Therefore, the researcher revisited the Nepali language before proceeding with the full data collection. The pilot study confirmed that carrying out the main study was feasible with existing tools and ensured that questionnaires would be able to address the research problem and research questions of this study.

After the pilot study, the researcher contacted and involved four trained enumerators to visit sampled local government bodies and collect data physically. Since the selected local governments were far-flung bodies, the researcher employed enumerators. The enumerators were oriented and supervised throughout the data collection duration. In order to ensure data quality during the data collection, the researcher made sure to employ only experienced enumerators and the researcher conducted simulation exercises among the enumerators. They had at least 12 years of formal education and 2-5 years of experience in data collection for social science research. Because of the researcher's working relations with the lead data collector, the researcher was convinced that the orientation, simulation exercise, and close supervision would minimize any possible errors during the data collection. Once recruited, the enumerators proposed a plan that included a timeline to be able to collect the data within two months. Enumerators were asked to submit completed questionnaires on a fortnightly basis so that the researcher could do the data entry in a timely fashion. As an initial challenge, the printing company took two extra days to print 450 sets of my questionnaires. Furthermore, local elections in May also impacted the data collection timeline. However, with the enumerators' experience with data collection, and their familiarity with local level bodies and geographic locations, they were able to collect data within 2.5 months.

The enumerators had to visit the same school multiple times to get the questionnaires completed. Before the participants filled out the questionnaire, they were briefed about the purpose of the study and were assured that their responses would remain confidential. The participants of the study were requested to provide verbal consent, and the information about confidentiality was also included in the questionnaire (Annex I and II). The respondents were given as much time and days as they said they would need to fill out the surveys. The data collection approval letter from Kathmandu University School of Education (KUSOED) (Annex VII) was also shown to the respondents to ensure that they were aware of the purpose of the study. Since the data collection took place between May to July 2022, the COVID restrictions were largely lifted. Therefore, it was not an issue of transmitting COVID, and luckily, it was easier for the enumerators to visit the schools. After reaching schools, the enumerators contacted the principals and explained the purpose of the visit. Once the principal okayed, the enumerators waited until they met all the teachers teaching at the secondary level to inform them in a group about the purpose and the questionnaires. If teachers had any clarifying questions, enumerators were able to respond immediately. Teachers were given the questionnaires and allowed to fill them out at their convenient. Once filled out, the teachers were requested to put the filled out questionnaires at the certain spot within their office. In some cases, the enumerators would go back to collect the questionnaires.

The schools selected for this study are government/community schools. The schools were selected from three districts of the Kathmandu valley: Kathmandu, Lalitpur, and Bhaktapur. The local government bodies were randomly selected from these three districts, and all the schools and secondary level teachers within that local body were selected to participate in the study. The local bodies were selected using an

excel formula Index (range, Randbetween (lower and upper number range)). By random selection, Chandragiri and Kageshwori Manohara Municipality from Kathmandu district, Mahalaxmi Municipality from Lalitpur, and Changunarayan Municipality from Bhaktapur were randomly chosen for the data collection. Out of 394 total teachers, the enumerators were able to collect data from 390 teachers. The questionnaire set was 8 pages long, and it took about 20 minutes for a teacher to respond to the questionnaire.

After the collection of the data, the responses were processed for the analysis. Before the data entry process, the researcher manually checked the responded copies and coded. And the coded data were entered in SPSS and rechecked the entered data to make sure that the data in the SPSS matched with the responses in hard copy papers.

Data Analysis and Interpretation

The study used instruments to measure TSE and CMPs. The questionnaires were designed using the e-Delphi method and were on a five-point Likert-type scale. The study used quantitative data analysis tools using the SPSS (statistical software), and IBM SPSS AMOS. Exploratory factor analysis (also known as EFA) and confirmatory factor analysis (also known as CFA) were carried out with SPSS and SPSS AMOS, respectively, for the study. To put the research hypothesis to the test, a statistical model was utilized that included cross-tabulation, standard deviation, correlation, and regression. The correlation test indicated the association between self-efficacy and classroom management methods, while the cross-tabulation demonstrated the descriptive status of self-efficacy and classroom management techniques. Both a tabular representation and a narrative interpretation of the

outcomes of the data analysis were provided. In this section, I describe the analysis method in greater detail.

EFA is a multivariate statistical method. According to Watkins (2018), EFA has become a fundamental method in developing and validating psychological measurements. EFA identifies a small group of constructs that can explain the observed covariation among a set of measured variables. In social and behavioral science, the factors are assumed to be unobserved characteristics of people (Watkins, 2018). Hension and Roberts (2006) have warned that to conduct EFA, it should make evidence-based and thoughtful methodological decisions. Factor analysis serves three main purposes for this study; a) Identify the factors contributing to TSE and CMPs based on the indicators, b) showcase the relationship between the variables, observed and latent, and c) help know which theme supports which indicators based on the group scores.

This study applied EFA to identify the factors contributing to TSE and CMPs. After the number of factors extracted was determined, the researcher analyzed the data. Haig (2005) stated that CFA testing is needed to confirm the findings of EFA. Therefore, the researcher conducted CFA for classroom management and TSE major constructs and their sub-constructs extracted by EFA. CFA is used to confirm the dimensions or factors structured identified through EFA works in a new sample too. The researcher's CFA to confirm the factors was extracted from the EFA in this study.

TSE and CMPs are categorized into three levels: high, medium and low. The mean scores of the responses were used to categorize these levels into different groups. Best's criteria (as cited in Shabbir et al., 2014) were used to develop the three levels;

$$\frac{\text{Higher score} - \text{Lower score}}{\text{Number of Levels}}$$

$$= \frac{5 - 1}{3} = \frac{4}{3} = 1.33$$

Therefore, the levels are classified as follows.

1-2.33 = LOW

2.33-3.66= MEDIUM

3.66-5 = HIGH

Correlation analysis shows an association or relationship between 2 or more measurable quantitative variables (Gogtay & Thatte, 2017). The correlation is based on the linear relationship. The value of the correlation analysis is called the correlation coefficient. The value ranges from -1 to +1. In this study, the researcher used Karl Pearson's correlation analysis to determine the relationship between TSE and CMPs of Nepali public-school teachers.

Furthermore, in order to test hypotheses, the researcher used multiple regression analysis. Regression analysis demands some key assumptions to be met in order to generalize the findings. According to Field (2018), assumptions for linear regression analysis included i) samples should be independent, ii) normal distribution of data and iii) no multicollinearity. In order to ensure that these assumptions were tested and met, certain measures were followed.

The first assumption of sample should be independent was met as the respondents for this study were drawn from various schools, the respondents' independence was ensured. As for the second assumption, the Q-Q plots were drawn (Annex 4), exhibiting that data were normally distributed. The other major assumption for regression analysis is the absent of multicollinearity, the researcher administered

correlation analysis between the four factors and TSE and three factors of CMPs and CMPs. The results of correlation coefficient are presented in Table 29 and Table 30.

Correlation coefficients indicate the strength and direction of correlation in the range of -1 to $+1$, and coefficient $+0.6$ or more is considered strong positive correlation (Levin and Fox, 2009). Table 29 shows that the correlation between efficacy in instructional planning and efficacy in behavioral competence is the highest (0.681) among the four factors and correlation between efficacy in behavioral competence and efficacy in teaching skill was the lowest (0.257). Likewise, Table 30 for CMPs shows that the highest correlation among three factors was between management of teaching learning process and management of students in class (0.74) and correlation between management of teaching learning processes and management of group dynamics was the lowest (0.66). Both the tables indicate that four factors of TSE were positively associated and three factors of CMPs were strongly and positively correlated. The strong correlation also signals the problem of multicollinearity. Field (2009) stated that predictors having correlation coefficient close to 1 or -1, or above 0.9 are problematic variables and suggested removing such variables. This study (Table 29 and Table 30) showed that the correlations among all variables of both the CMPs and TSE were less than 0.75. Thus, the results indicated that multicollinearity was not a concern for this study.

Reliability and Validity

All pre-established quantitative measurements are evaluated for quality using two criteria: reliability and validity. The consistency of scores, or an instrument's capacity to "roughly" give the same score for a person throughout multiple tests or assessments by various raters, is known as reliability (Lodico et al., 2006).

The reliability of the data contributes to the credibility of the conclusions and the generalizability of the findings. As a result, the researcher decided to conduct a reliability test using the alpha coefficient of consistency. Since it is (a) a widely used and well-liked technique to check reliability, and (b) it is simple to use since it only requires a single test administration and Kahn (2006) suggested applying Cronbach's alpha coefficient among many statistical tools to measure reliability and internal consistency of data.

To test the reliability of the data, the researcher conducted a pilot study among 10% of the total sample size. The data were collected from 40 teachers working in secondary-level of public schools. The data were analyzed using SPSS. The following result was found from the data analysis.

Table 5

Reliability Test of Pilot Study Data

Case Processing Summary			
		N	%
Cases	Valid	40	100.0
	Excluded	0	.0
	Total	40	100.0
a. Listwise deletion based on all variables in the procedure.			
Reliability Statistics			
Cronbach's Alpha		N of Items	
		.860	54

The table 5 shows the Cronbach Alpha's value of pilot study data. There was .86 (86%) reliability found in survey data which indicates the excellency of the instrument and its reliability for further data collection.

The internal reliability of the final data was also examined in the study. Internal consistency measures how closely the survey items are related or whether they consistently assess the same construct. The coefficient alpha, often known as

Cronbach's alpha, is frequently used to measure internal consistency (Cronbach L., 1951).

Table 6

Reliability of Final Data (Cronbach Alpha Value of Final Data)

Case Processing Summary			
	N	%	
Cases	Valid	334	85.6
	Excluded ^a	56	14.4
	Total	390	100.0
a. Listwise deletion based on all variables in the procedure.			
Reliability Statistics			
Cronbach's Alpha		N of Items	
	.822	50	

The Cronbach's Alpha value of final data is found .82, indicating that the data have very good internal consistency. In contrast, validity is concerned with confirming that the instrument Measurement in Educational Research and Assessment measures what it proclaims to measure (Lodico et al., 2006). In other words, an instrument's validity shows how accurate it is. Examining a questionnaire to see if it measures what it was designed to assess can help establish whether or not the questionnaire can be considered legitimate. When validating a questionnaire, two basic types of validity need to be considered: content validity and construct validity (Tsang et al., 2017).

The term "content validity" refers to the extent to which the items contained inside a questionnaire indicate the overall theoretical construct that the questionnaire is supposed to evaluate (Schultz & Whitney, 2005). I carried out in-depth qualitative conversations as a component of the e-Delphi processes. The evaluation of the content validity of the questionnaire should be delegated to a panel of experts who are knowledgeable about the construct that the questionnaire is intended to evaluate. In

this case, the panel of experts consisted of experienced secondary school educators from public schools.

The idea of construct validity is the one that should be kept in mind the most when examining a questionnaire that is meant to assess a construct that cannot be observed directly. If a questionnaire lacks construct validity, it could be challenging to interpret the results and impossible to deduce any information about a behavior domain from the responses to the questionnaire. By assessing the link between a questionnaire and other variables with which it should have a positive correlation, a negative correlation, or no correlation, one can assess the construct validity of a questionnaire (Cronbach & Meehl, 2017). Using the preceding context as a foundation, the researcher conducted another validation check on the data by calculating the correlation coefficient between NTSE scale and the CMPs scale. The specific results are shown in Table 7.

Table 7

TSE and CMPs Relationship Based on Pilot Study Data

		Correlations	
		Self_efficacy_Total	Classroom_Mgt_Total
Self_efficacy_Total	Pearson Correlation	1	.742**
	Sig. (2-tailed)		.000
	N	40	40
Classroom_Mgt_Total	Pearson Correlation	.742**	1
	Sig. (2-tailed)	.000	
	N	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

The result presented in table number 7 shows a significant correlation between self-efficacy and classroom management style at .01 significant level. This determines that the data were valid.

Ethical Considerations

Clegg and Slife (2009) stated that ethical concerns must be taken into account from research design to explaining the findings of a research project. Throughout this research process, the researcher ensured adherence to ethical practices. During the proposal defense in 2018, KUSOED's proposal review committee granted ethical permission for this study. While sending out the questionnaires, the researcher explained the purpose and rationale of the research on the first page of each questionnaire, in addition to explaining the implication of such research.

The researcher requested the research participants to respond to the questionnaire at their convenience and left an "optional" mark for personally identifiable information such as name, school name, age, etc. The researcher assured the respondents that their details were handled carefully and only used for the purpose of the study. The researcher applied guiding principles suggested by American Evaluation Association for Maintaining Ethical Considerations (Mortens, 2015). These include a) systematic inquiry; this study plan was structured and designed prior to going out to the field, b) researchers' competence: the researcher has gained insights into the theory and techniques of research through my academic courses. The researcher has a deeper understanding of the Nepali education sector through an academic program, c) integrity and honesty: integrity and honesty are researcher's core values, and they were practiced at all stages of the research. d) respect: the researcher made sure that the research team and enumerator used respectful language with the respondents and other stakeholders during the engagement e) responsibility for general public welfare: this research has potential to be a breakthrough tool to shape Nepali public school education. While at work, the researcher ensured that this study's usefulness was shared with all the stakeholders, particularly participating

teachers by explaining verbally. The teachers were requested for verbal consent to participate in this study and language about anonymity and confidentiality was included in the questionnaire (Annex I and II). The respondents were told that they were free not to participate in this study and they could drop out at any time.

In addition, the researcher considered other ethical considerations such as maintaining anonymity using respectful and simple wording in the native language, applying gender-sensitive and diverse community languages and maintaining honesty during the whole research process to ensure ethical concern in my research.

Chapter Essence

This chapter has outlined the methodological actions taken into consideration while doing this research. The chapter began by explaining post-positivism's philosophical position, which led to my epistemology: post-positivism's philosophical position led to my epistemology that knowledge can be objectively found, which led the researcher to the quantitative research method. The researcher used the Kathmandu valley as a sample area and a total of 358 teachers were selected as my sample through random cluster sampling. The questionnaires were constructed through the e-Delphi technique and were found to have a high-reliability value of .82. The data collected were analyzed through EFA, CFA, correlation analysis, and descriptive statistics. Appropriate ethical guidelines were followed to carry out the research, including informed consent, anonymity of the participating teachers and voluntary joining and dropping out from responding to the surveys.

CHAPTER IV

EXPLORATORY FACTOR ANALYSIS: TEACHERS' SELF-EFFICACY AND CLASSROOM MANAGEMENT PRACTICES

Teachers' aims and actions in the classroom are guided by their ideals. Additionally, values can promote a person's feeling of self-efficacy and subjective well-being. TSE significantly influences important academic outcomes or teachers' views on their capacity to successfully manage the responsibilities, obligations, and obstacles associated with their professional activity (Barni et al., 2019). Self-efficacy is a teacher's important psychological attribute used to accomplish specific academic tasks for students (Hassan, 2019). TSE has gradually taken on a more significant role in psychology research because of its consequences for instructional practices, academic learning and achievement of students, and teaching effectiveness (Klassen & Tze, 2014). Numerous studies have indicated that instructors with high levels of self-efficacy report feeling more satisfied with their work, experiencing less stress at work, and having an easier time disciplining misbehaving student (Caprara et al., 2003).

The study collected data from 390 public secondary level teachers and conducted an exploratory factor analysis to find out the factors contributing to TSE and CMPs. According to Babbie (2014), the factor analysis supports the researcher in identifying and examining the interrelationship among large numbers of interrelated variables, regrouping them under different common components. It reduces weakly or moderately correlated variables and retains only those that are fairly or strongly correlated (Foster et al., 2005). Thus, the researcher administered exploratory factor analysis to explore the factors contributing to TSE and CMPs in Nepali public

schools. Before administering exploratory factor analysis, the researcher should ensure that certain assumptions are met (Foster et al., 2005; Tabachnick & Fidell, 2007; Cohen et al., 2007; Yong & Pearce, 2013). Table 8 includes two columns: assumptions to be fulfilled for exploratory factor analysis and considerations and results of this study.

Table 8

Assumptions for Exploratory Factor Analysis

Assumptions to be met	The study results
1. Data type: Interval scale or five- or seven-point Likert scale	Used a five-point Likert scale
2. Correlations of items/variables > 0.30	Correlations of all items were > 0.30
3. Sample size should be at least 100 provided the number of research participants is more than double the items	The sample size of this study was 390.
4. Retention of items loading > 0.30	Kept items with factor loading > 0.50
5. Retention of dimension having Eigenvalues > 1	Retained factors 1-4, which have Eigenvalues > 1 (Annex 2)
6. Retaining factor: a minimum of 3 items are required for each factor.	In this study, there were 3 to 9 items under each factor.
7. KMO Sample adequacy > 0.5, and communalities should be in an average of extraction > 0.5	KMO value for this study was 0.935 (Annex 2, Table 1), and communalities of the average of Extraction was > 0.608 (Annex 2)

Table 8 illustrates the assumptions needed to conduct exploratory factor analysis. The type of data is the first assumption. The assumption says that exploratory factor analysis (EFA) could be conducted when data is gathered in five or

more internal scales. The researcher used a five-point Likert scale, which meets the first assumption for EFA.

The second condition for factor analysis is the correlations of variables or items. This study has items with a correlation value of more than 0.3. All of the items have a correlation value over 0.3, which meets the criteria of the second assumption. Another assumption requires that the number of research participants should be more than 100 or more than twice the number of items. This study has 390 respondents satisfying the third assumption for the factor analysis. In general, researchers have claimed that a sample size of 100 is considered inadequate, 300 is good, and 1000 is an excellent sample size (Comrey & Lee, 1992, as cited in Field, 2009). In this study, the researcher has a sample size of 390, a third of the factor analysis is satisfied.

The fourth assumption of EFA requires a certain value of factor loading. Factor loading is defined as a relationship between items and constructs denoted by coefficient correlations value. However, there are differing perspectives on the minimum correlation coefficient to keep the factors. For example, authors like Foster et al. (2005) have recommended that a study can keep variables/items with a value of 0.3 or higher, while Osborne and Costello (2005) recommended keeping items with a factor loading value of 0.50 or higher. Cohen et al. (2007) suggested that the decision on determining a factor loading cut-off point is a judgement call based on the nature and type of data. In line with Costello and Osborne (2005) and the recommendation made by Cohen et al. (2007), the researcher decided to use 0.5 as the cut-off point.

Eigenvalues also contribute to EFA assumptions. Young and Pearce (2013) stated that factors with Eigenvalues of >1 are kept. In this study, EFA confirmed that four components in NTSE and three in CMPs have >1 Eigenvalues (Annex 3). These

five factors are considered the factors contributing to TSE and CMPs in Nepali public schools.

The sixth assumption for EFA concerns the number of items each factor can have. It is a rule of thumb that factors with three or more than three are normally kept measuring the constructs. For example, Kline (1994) suggested that there have to be at least three items for every single factor. In this study, the researcher has put three items for each factor.

Another consideration for EFA is KMO Sampling Adequacy and Communalities values. The assumption is that KMO Sampling Adequacy and communalities require to be >0.5 . The data from this study demonstrates that the KMO value is 0.935 (Annex 3), and the value of communalities is 0.608 (Annex 3). Hence condition seventh of EFA was met.

As stated above, the assumptions have all been met to conduct EFA. After this, the researcher conducted exploratory factor analysis separately for two constructs: TSE and CMPs. The EFA showed that 25 items were loaded into four components of NTSE and 20 items were loaded into three components for CMPs (Annex 2).

Exploratory Factor Analysis (EFA) of Nepali Teachers' Self-efficacy (NTSE)

The study conducted by EFA teaches self-efficacy to reduce the number of variables based on the factor loading value, resulting in identifying the factors contributing to TSE. EFA is a statistical process for reducing many observed variables to a smaller number of "factors/components" that employ the commonality of the variables (Hadia et al., 2016). The study measured the 28 variables to measure the NTSE extracted via principal component analysis (PCA) using the SPSS software. The KMO and Bartlett's test of Sphericity was used to measure the appropriateness of

data. With KMO value at .93, and Bartlett's test for Sphericity significant at 0.05 level, the data were found to be appropriate for the study. The study extracted four key factors for NTSE. These identified factors explained a total of 56.69 % of the variance.

Rotated Component Matrix of Teacher's Self-Efficacy

EFA calculated the value of the factor for each variable. The 28 variables are divided into four factors. The value of factor loading of the efficacy on student engagement is a minimum .53 to a maximum .71. Similarly, the value of efficacy on instructional preparation is a minimum of .60 to a maximum .77, the value of efficacy of behavior competency is .53 to maximum .74, and the factor loading value of efficacy of teaching skills is .74 to maximum .87. Each criterion is assigned a score to each item. As Field (2013) recommended, I have removed factor loadings with a value below 0.3. The factor loading value of each variable is more than .5, so it is acceptable based on the literature. Out of 25 items initially analyzed, 25 were grouped into four different components.

Table 9

Factors of Nepali TSE

	Rescaled Component			
	1	2	3	4
Separate my professional and personal obligation.	.711			
Confidence in addressing classroom problems.	.676			
Considering the in-depth knowledge of students.	.614			
Encouraging an active engagement of students	.538			

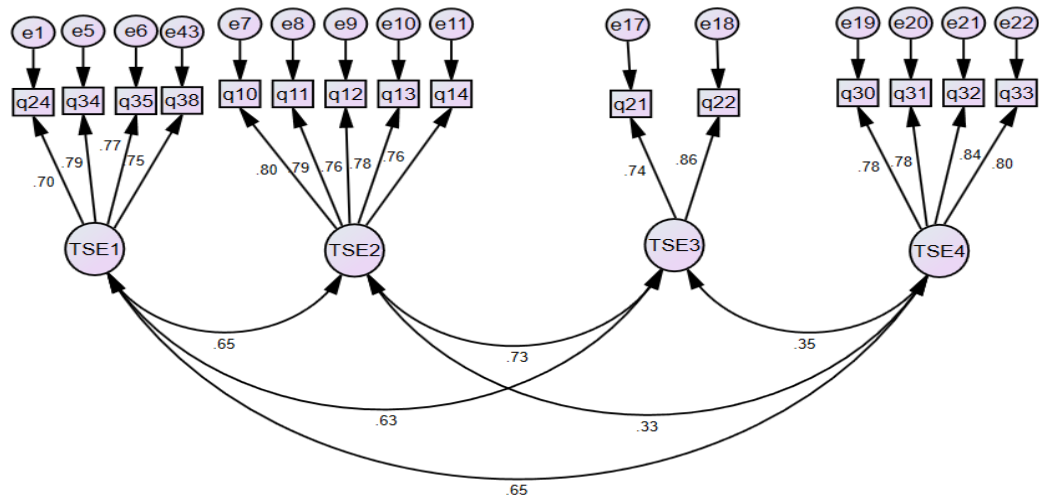
Deliver the lessons smoothly by holding students' attention.	.564	
Analyze the learning styles of each student and teacher.	.686	
Provide regular counselling	.598	
Confidence in increasing student achievement and motivation.	.665	
Use my language proficiency	.634	
Confidence in teaching in general		.688
Preparing for my lessons		.778
Confidence in getting through difficult topics.		.761
Designing classwork to effectively achieve lesson objectives.		.736
Managing the difficult students		.684
Complete my syllabus/course on time.		.601
Relate my teaching topic to students' real life for better learning.		.536
Prepare teaching materials in advance to teach a lesson to the students.		.546
Solicit support from my principal		.665
Wear a presentable and confident dress		.736
Take and remember the names of students so that they feel valued.		.743
Show respect towards my students.		.635
Make my principal happy with my teaching methodologies.		.811
Make my students happy with my teaching methodologies.		.702
Make my school management committee or relevant authority happy with how I am helping students learn.		.877
Make parents happy with my teaching		.789

methodologies.

Confirmatory Factor Analysis (CFA) of Factors Contributing to Teacher's Self-Efficacy

A CFA of NTSE was carried out to determine if the factors identified by the exploratory factor analysis represented the same characters. Factor analysis is usually used to develop scales and determine the existence of latent variables. According to Brown (2015), a CFA is used to either confirm the findings from an EFA or if the factors are based on the theory. Structural equation modeling (SEM) is considered to be a sophisticated multivariate analysis approach in social science (Gonzalez et al., 2008). Its usage includes simple analysis to an analysis of complicated measurements for top higher-order entities (Cheung, 2008). A strong benefit of CFA is that it allows a flexible framework for exploring complicated interactions across various factors/variables, which provides researchers with some empirical models to test whether theories are valid.

Plotting the variables with IBM SPSS AMOS 26 for CFA provided more evidence to support the factors retrieved using EFA. Following the plotting and execution of the model, there were a total of 135 unique sample moments, 51 parameters to be estimated, and 84 degrees of freedom. The chi-square statistic came in at 177.21, and the probability level was 0.00. (Figure 2).

Figure 2*Confirmatory Factor Analysis of TSE*

The model's output (Figure 2) shows that the coefficients of the potential latent variables range from moderate (0.33 to high 0.86) to high (0.86). In addition, a regression analysis was carried out as part of the study to investigate the possible connections between the various indicators and the NTSE and CMPs components. The regression weight shown in table 10 demonstrates that the estimates are lower than 1, indicating that each item is important to its latent factor. This reveals a substantial relationship between the sub-factors or individual items and TSE. Additionally, it demonstrates the correlation between the individual items and instructors' self-efficacy.

Table 10
Examining the Linkage and Estimation for CFA for TSE

			Estimate	S.E.	C.R.	P	Label
Separate my professional and personal obligation while in the classroom.	<---	TSE1	1.000				
Deliver the lessons smoothly by holding students' attention.	<---	TSE1	1.142	.081	14.030	***	par_1
Analyze the learning styles of each student and teach.	<---	TSE1	1.042	.076	13.676	***	par_2
Confidence in what I am teaching	<---	TSE2	1.000				
Prepare for my lessons before my class time.	<---	TSE2	.974	.057	16.956	***	par_3
Confidence in getting through difficult topics.	<---	TSE2	.875	.055	16.036	***	par_4
Design classwork to effectively achieve lesson objectives.	<---	TSE2	.880	.053	16.563	***	par_5
Manage the difficult students ruining the class.	<---	TSE2	.871	.054	16.008	***	par_6
Take and remember the names of students so that they feel valued.	<---	TSE3	1.000				
Show respect towards my students.	<---	TSE3	1.012	.078	12.999	***	par_7
Make my principal happy with my teaching methodologies.	<---	TSE4	1.000				
Make my students happy with my teaching methodologies.	<---	TSE4	.973	.061	15.922	***	par_8
Make my school management committee or relevant	<---	TSE4	1.214	.071	17.224	***	par_9

authority happy with how I am helping students learn.								
Make parents of students happy with my teaching methodologies.	<---	TSE4	1.074	.066	16.236	***	par_10	
Use my language proficiency to run my classes.	<---	TSE1	1.089	.082	13.292	***	par_11	

The path coefficient of 15 representative sub-dimensions is statistically significant ($p < .05$). Therefore, we can conclude that all the indicators have a statistically significant effect on the construct of TSE. The P value is lower than 0.01, and the findings indicate a significant association between the various factors and the level of self-efficacy experienced by the teachers. According to the findings in the table 8, there was a statistically significant relationship between the various variables and the level of self-efficacy exhibited by the teachers.

Table 11*Standardized Regression Weights: (Group number 1 - Default model)*

			Estimate
Separate my professional and personal obligation while in the classroom.	<---	TSE1	.704
Deliver the lessons smoothly by holding students' attention.	<---	TSE1	.793
Analyze the learning styles of each student and teach.	<---	TSE1	.770
Confidence in what I am teaching	<---	TSE2	.802
Prepare for my lessons before my class time.	<---	TSE2	.795
Confidence in getting through difficult topics.	<---	TSE2	.760
Design classwork to effectively achieve lesson objectives.	<---	TSE2	.780
Manage the difficult students.	<---	TSE2	.759
Take and remember the names of students so that they feel valued.	<---	TSE3	.736
Show respect towards my students.	<---	TSE3	.858
Make my principal happy with my teaching methodologies.	<---	TSE4	.780
Make my students happy with my teaching methodologies.	<---	TSE4	.784
Make my school management committee or relevant authority happy with how I am helping students learn.	<---	TSE4	.844
Make parents of students happy with my teaching methodologies.	<---	TSE4	.798
Use my language proficiency to run my classes.	<---	TSE1	.746

The study analyzed the Model Fit measures to know the value of model fit indices. The result is generally found satisfactory because CMIN/DF has a value of 2.11, CFI is 0.97, RMSEA is 0.05 and P close 0.292. Table 12 shows the interpretation of each measurement scale. Similarly, the value of NFI is .94, RFI is .932, IFI is .970, and TLI .963> Thus, the model is regarded as acceptable.

Table 12
Model Fit for TSE

Measure	Estimate	Threshold (Gaskin & Lim, 2016)	Interpretation
CMIN (Chi-square statistics)	177.213	--	--
DF (Degrees of Freedom)	84.000	--	--
CMIN/DF	2.110	Between 1 and 3	Excellent
CFI (Comparative Fit Index)	.970	>0.95	Excellent
RMSEA (Root Mean Square Error of Approximation)	.053	<0.06	Excellent
PClose (<i>P</i> value when RMSEA is > 0)	.292	>0.05	Excellent

Explanation of Factors Contributing to Teachers' Self-Efficacy

The researcher named different components identified by EFA to represent most of the items loaded under it based on the literature review and the experience. The researcher was aware of the principle that the names of each factor reflect the overall spirit of the items loaded under that theme. The four factors that contribute to TSE are named as follows.

1. Component 1: Efficacy of students' engagement
2. Component 2: Efficacy in instructional preparation
3. Component 3: Efficacy in behavioral competency
4. Component 4: Efficacy of teaching skills

Ene et al. (2020) have identified three factors of TSE: engagement of students, instructional strategies, and management of students' behavior. This was done through an EFA followed by a CFA with a sample of 218 pre-service teachers in Nigeria. Since the study used an already established TSE scale developed by Ma, Lu, and Trevenhan, the researcher believes the instrument lacked the context of Nigeria. As Bandura (1997) stated, while measuring self-efficacy, it has to be context-specific and therefore guided by local knowledge. While three of the four factors match the

Ene et al. study, the fourth component of teaching skills seems more Nepal-specific. In Nepal, TSE might have increased by how well a teacher perceives his/her teaching skills because of their positionality as educators in the Nepali community. Therefore, I plan to continue using efficacy in teaching skills as the fourth factor contributing to TSE in Nepali.

TSE1- Efficacy in Students Engagement

Efficacy of student engagement is one element of teacher self-efficacy. There are nine variables under this component 1 – efficacy on student engagement. The frequency distribution and mean value of each variable show that the minimum mean value was 4.22 for ‘I am confident that my teaching increases the student achievement and motivation’, and the maximum mean value was 4.33 for ‘I can deliver the lessons smoothly by holding students’ attention’.

Table 13

Efficacy in Students Engagement

Statements	SD	D	N	A	SA	NA	Mean
Separate my professional and personal obligation while in the classroom.	1.0	.5	2.3	56.9	39.2		4.32
Confidence in addressing classroom problems.	.8	1.8	5.6	56.4	35.1	.3	4.24
Driving classes considering the in-depth knowledge of students.	1.0	.8	2.1	60.8	35.4		4.28
Encourage active engagement of students to maximize my teaching capabilities.	1.0	1.0	3.6	55.1	38.7	.5	4.31
Deliver the lessons smoothly by holding students’ attention.	1.0	.8	1.3	58.5	37.7	.8	4.33
Analyze the learning styles of each student and teacher.	.8	.3	2.8	61.5	34.1	.5	4.29
Counselling to Student	1.0		4.4	62.3	31.8	.5	4.25

Confidence in increasing student achievement and motivation.	.8	.8	6.2	60.3	32.1	4.22
Use body language proficiency to run my classes.	1.3	.3	3.1	56.9	38.5	4.31

According to the frequency distribution of each question, more than 90% of teachers agreed that they could separate their professional and personal obligations in the classroom and address classroom problems confidently. During this study, teachers also shared that they could drive their classes by considering the in-depth knowledge of students, encouraging active engagement of students to maximize their teaching capabilities, and delivering the lessons smoothly by holding students' attention. They further shared that they could analyze the learning styles of each student and teach, provide regular counselling to their students which could have a positive impact on their behavior, and be confident that their teaching increases student achievement and motivation. They were able to use their language proficiency to run the classes.

TSE2 - Efficacy in Instructional Preparation

The teachers' efficacy in instructional preparation is another element of teachers' self-efficacy. There are six variables used to measure this construct. Six variables measure the instructional preparation because they ask about confidence in teaching and dealing with difficult topics, timely preparation of teaching materials and completion of syllabus, effectively designing the classwork, and managing the students.

Table 14

Efficacy in Instructional Preparation

Statements	SD	D	N	A	SA	NA	Mean
Confidence in what I am teaching	2.3	1.3	.8	48.7	46.9		4.36

Statements	SD	D	N	A	SA	NA	Mean
Prepare for my lesson plans	2.1	.8	2.6	45.6	49.0		4.38
Confidence in getting through difficult topics.	1.5	1.0	2.3	56.7	37.9	.5	4.30
Design classwork to effectively achieve lesson objectives.	1.3	1.0	1.8	52.8	42.6	.5	4.35
Manage the problematic students ruining the class.	1.8	.5	2.6	55.6	39.5		4.30
Complete my syllabus/course on time.	1.8	1.0	1.3	46.7	49.0	.3	4.40

The frequency distribution of Table 14 shows that more than 90% of teachers accepted their level of instructional preparation for teaching and learning in the classroom. The mean value is a minimum of 4.3 and a maximum 4.4. The mean value is close to agreeing and strongly agreeing with the teachers.

TSE3 – Efficacy in Behavioral Competency

The study discussed the efficacy of behavior competency of teachers towards principals and teachers. The frequency distribution of 4.8 shows that all teachers responded positively to their behavior and attitude. More than 90% of teachers believed that they could relate the teaching topic with students' real-life for better learning, with a 4.22 mean value.

Table 15

Efficacy in Behavioral Competence

Statements	SD	D	N	A	SA	NA	Mean
Relate my teaching topic to students' real-life for better learning.	.8	1.0	8.2	55.1	34.6	.3	4.22
Prepare teaching materials	.8	2.3	11.0	57.9	27.9		4.10
Solicit support from my principal.	1.8	1.3	4.4	47.2	45.1	.3	4.33
Wear a presentable and confident dress	2.8	1.8	2.3	41.3	51.5	.3	4.37
Take and remember the names of	1.5	1.8	7.2	44.1	45.1	.3	4.30

Statements	SD	D	N	A	SA	NA	Mean
students							
Show respect towards my students.	1.5	.5	1.8	48.5	47.7		4.40

The descriptive analysis in Table 15 shows that the minimum mean is 4.10, and the maximum mean is 4.40. The teachers at the public secondary level school shared that they could prepare teaching materials in advance to teach a lesson to the students, solicit support from the principal if they encountered any problem. They were presentable and confident in front of the class, took and remember names of students so that they feel valued, and during classroom activities, show respect towards the students.

TSE4 – Efficacy in Teaching Skills

The study also discussed the efficacy of teaching skills of the teachers to make their academic stakeholders happy, like the school management committee, principal, students, and parents of students. The frequency distribution shows that around 85% of teachers agreed on their teaching skills. The mean value indicates a minimum of 4.2 to a maximum of 4.23 which is close to the “agree” in general.

Table 16*Efficacy in Teaching Skills*

Statements	SD	D	N	A	SA	NA	Mean
Make my principal happy with my teaching methodologies.	.5	.3	12.6	55.4	25.4	5.9	4.22
Make my students happy with my teaching methodologies.	.8	.3	12.1	55.4	27.9	3.6	4.20
Make my school management committee or relevant authority happy with how I am helping students learn.	1.0	.3	14.1	51.8	23.8	9.0	4.24
Make parents of students happy with my teaching methodologies.	.8	.3	12.8	53.6	25.6	6.9	4.23

The discussion covered the different issues of teachers' teaching skills, which they could perform through their teaching methodologies. Teachers shared that they could make the principal, students, school management committee, and parents of students happy with their teaching methodologies. A student can improve academic achievements if there is a good teaching and learning environment. A teacher may be able to influence students' academic outcomes.

Hypothesis 1

H₁: Efficacy on Students Engagement (ESE), Efficacy on Instructional Preparation (EIP), Efficacy on Behavioral Competency (EBC), and Efficacy in Teaching Skills (ETS) contribute to overall TSE.

Table 17*Factors Contributing to TSE*

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
ESE	.250	.000	.250	628.24	.000
EIP	.250	.000	.317	732.55	.000
EBC	.250	.000	.298	699.84	.000
ETS	.250	.000	.433	1255.73	.000

H₁ stated that there was significant contribution of efficacy to students' engagement (ESE), efficacy to instructional preparation (EIP), efficacy to behavioral competency (EBC), and efficacy in teaching skills (ETS) to TSE. Since the *P* values of ESE (*P*=.001), EIP (*P*=.001), EBC (*P*=.001), and ETS (*P*=.001) are less than a .05 significant level, it was observed that the factors have a significant contribution to TSE. Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted. In other words, TSE, EIP, EBC, and ETS significantly contribute to TSE.

Exploratory Factor Analysis (EFA) Classroom Management Practices

Identification of classroom management practice is another objective of this study. Twenty-three questions were asked to measure the classroom management practice of teachers at public secondary schools in the Kathmandu valley. The study did factor analysis to reduce the variables and grouped these variables. Kaiser-Meyer-Olkin Measure of Sampling Adequacy test was run to see the sampling adequacy. The data presented in (annex 3) shows that the KMO value is .95, indicating adequate sampling. Besides that, Bartlett's Test of Sphericity test shows that the *P* value is .000, which is significant at .05 significant levels. The factor analysis resulted in three

groups of classroom management practice. These three components explained 58.79% of the variance in classroom management practice.

The rotated component matrix shows the factor loading value of each variable divided into three components. There are nine variables under component 1. The factor loading value of component 1 is a minimum of .514 to a maximum of .763. Similarly, there are eight variables under component 2. The factor loading value of component 2 is a minimum of .601 to a maximum of .742.

Table 18

Rotated Component Matrix

	Rotated Component Matrix ^a		
	Rescaled Component		
	1	2	3
Remember the names of each student in my class.	.763		
Develop a specific plan for slow-learners.	.634		
Take classroom engagement into consideration for internal assessment of the students.	.696		
Use body or hand movements and facial expressions during teaching,	.620		
Use varieties of learning materials as the learning styles of students	.538		
Teach moral education	.514		
Encourage students even in their incorrect responses	.573		
Intimate relations with students	.722		
Seat arrangements	.628		
Greet students		.638	
Students stand up to greet me when I enter the class.		.644	
Encourage well-managed behavior		.667	
Disruptive behavior continues to be reported to the principal.		.601	
Students comply with my classroom norms.		.604	

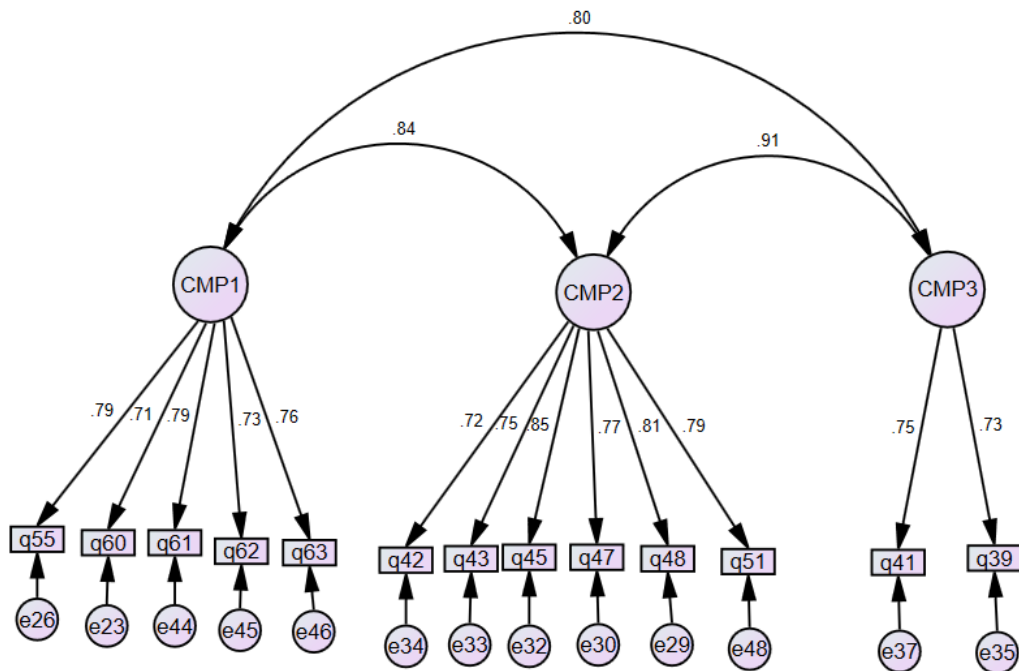
Encourage students to ask questions.	.742
Teach my lesson first and then ask students to ask questions.	.676
Model discipline in my class	.661
I appoint class representatives and/ or monitors	.797
I divide the class into groups.	.691
I reward the positive behavior of the students.	.578

There are only three variables under component 3, which has a minimum of .578 to a maximum of .797 factor loading value.

Confirmatory Factor Analysis (CFA) of Classroom Management Practices

As Brown (2015) stated, CFA is applied to ascertain the structures achieved out of the EFA. The CFA tests hypothesized relationships between and among the group of measured and latent variable (MacCallum & Austin, 2000). The study uses CFA to test and evaluate multivariate causal relationships. To provide additional evidence in support of the factors, the variables obtained from the EFA were subjected to a subsequent round of analysis employing the CFA software program SPSS AMOS 26. During the entire process of charting the model, the analysis gathered 104 unique sample moments, 42 parameters to be estimated, and 62 degrees of freedom. The value of Chi-square was 228,629, and the probability level was 0.000. (Figure 3).

Figure 3
CFA for Classroom Management Practice



The values in the model show that all the path coefficients to the predicted latent variables are high level (range from .71 to .91). The statistical analysis of regression analysis shows a significant relationship with four variables out of five variables of CMP1. Similarly, there was a significant relationship with five out of six variables of CMP2. The result also shows a considerable relationship with one variable out of two variables of CMP3.

Table 19
Examining Linkage and Estimation For CFA

			Estimate	S.E.	C.R.	P	Label
Teach moral education to my students,	<---	CMP1	1.000				
Take classroom engagement	<---	CMP1	1.031	.071	14.505	***	
Encourage students to ask questions.	<---	CMP2	1.000				
Students comply with my classroom norms.	<---	CMP2	.911	.053	17.177	***	
Encourage well-managed	<---	CMP2	1.044	.054	19.416	***	

behavior						
Students stand up to greet me	<---	CMP2	.951	.058	16.512	***
Greet students when I enter the classroom.	<---	CMP2	.926	.059	15.660	***
I appoint class representatives and/ or monitors to facilitate classroom engagement.	<---	CMP3	1.000			
Reward positive behavior of the students.	<---	CMP3	.884	.065	13.514	***
Encourage students even in their incorrect responses,	<---	CMP1	1.054	.073	14.508	***
Build relation with students	<---	CMP1	1.040	.077	13.495	***
Seating arrangements	<---	CMP1	1.151	.082	14.010	***
Model discipline	<---	CMP2	.986	.056	17.638	***

To identify the factors contributing to CMPs, all the sub-factors or indicators were assessed separately. The results are depicted in table 18. First, the ‘*P* value’ is important to see whether there is a relationship between the TSE and sub-factors. Here, the *P* value must be less than 0.05. In the case above, all indicators' ‘*P* value’ is less than 0.01. Therefore, it was found that there was a significant positive relationship between CMPs and its sub-factors.

Table 20

Regression Weights: (Group number 1 - Default model)

			Estimate
Teach moral education to my students,	<---	CMP1	.71
Take classroom engagement	<---	CMP1	.78
Encourage students to ask questions.	<---	CMP2	.81
Students comply with my classroom norms.	<---	CMP2	.77
Encourage well-managed behavior	<---	CMP2	.84
Students stand up to greet me	<---	CMP2	.75
Greet students when I enter the classroom.	<---	CMP2	.72
I appoint class representatives and/ or monitors to facilitate classroom engagement.	<---	CMP3	.73

Reward positive behavior of the students.	<---	CMP3	.74
Encourage students even in their incorrect responses,	<---	CMP1	.78
Build relation with students	<---	CMP1	.73
Seating arrangements	<---	CMP1	.76
Model discipline	<---	CMP2	.79

Unlike traditional approaches to statistical tests, structural equation modelling applies a series of tests in terms of statistics to evaluate the fitness of data. For example, the chi-square test is used to determine how much difference there is in covariance matrices between the observed and expected variables. When a chi-square value is closer to 0, the observed and expected covariance matrices are closer to identical, and the probability cut-off must be $>.05$ (Suhr, 2021).

The Comparative Fit Index (CFI) indicates that the function in question is a discrepancy function that has been modified to guarantee a sufficient sample size. If the CFI is between 0 and 1, a higher number suggests that the model fits the data more closely. When the CFI value is more than 0.09, the model is considered an adequate fit (Hu & Bentler, 1999). RMSEA, which stands for root mean square error of approximation, is another indicator of a model's residual. With a range from 0 to 1, a lower RMSEA value indicates that the model fits better. If the value is less than 0.06, then the model is considered a good fit for the data (Hu & Bentler, 1999). The results of an evaluation of the Model Fit measures, which were based on the model fit condition explained by the study that came before it, were judged to be satisfactory. The value of CMIN/DF is 3.688, the value of CFI is 0.946, the value of RMSEA is 0.083, and the value of PClose is 0.000. The results are broken down and interpreted in Table 17. Similarly, the value of NFI (is $.92 > .90$, RFI is $.90 > .90$, IFI is $.94 > .90$, and TLI $.93 > .90$), thus, the model is regarded as acceptable for building linkages between the individual variables and CMPs of Nepali public-school teachers.

Table 21*Model Fit Indices*

Measure	Estimate	Threshold (Gaskin & Lim, 2016)	Interpretation
CMIN (Chi-square statistics)	228.62	--	--
DF (Degrees of Freedom)	62	--	--
CMIN/DF	3.688	Between 1 and 3	
CFI (Comparative Fit Index)	.946	>0.95	
RMSEA (Root Mean Square Error of Approximation)	.083	<0.06	
PClose (<i>P</i> value when RMSEA is > 0)	.000	>0.05	

Explanation of Factors Contributing to Classroom Management Practices

Following the extraction of the factors, the CFA ensured the construct validity of the sub-factors of the CMPs. In the following section, I elaborate more on the factors of CMPs. Basar (2005) and Uysal et al. (2014) identified four-five categories of classroom management: physical order, instruction, time: physical order, instruction management, time management, communication, and behaviors. The following three factors the researcher developed cover all of these procedures. For example, instruction management and management of time would fall under the management of teaching and learning processes. Likewise, the management of communication and physical order would come under the management of group dynamics.

Furthermore, the management of behavior would come under the management of students. Kaplan (2018) developed teachers' classroom management skills, including physical arrangement of classroom, communication and behavioral arrangement, management of time, and program-plan activities sub-dimensions. Although these are different names; the researcher believes that they have the same spirit as the factors developed through EFA.

CMP 1: Management of Teaching and Learning Processes

A teacher should have many skills and qualities to manage the classroom effectively. A teacher should know the learning status of each student and encourage them to improve their learning achievement. The study asked nine questions to measure the management of teaching and learning processes. The data presented in Table 20 shows that the teachers agreed that they could manage the teaching and learning processes effectively as around 90% of teachers reported positively on each question.

Table 22

Management of Teaching and Learning Processes

Statement	SD	D	N	A	SA	NA	Mean
Ensure that I remember the names of every student in my class.	1.0	3.3	10.8	55.1	29.7		4.09
Develop a specific plan for slow learners.	1.3	.8	7.4	62.6	27.7	.3	4.15
Take classroom engagement	1.8	.3	3.1	62.8	32.1		4.23
Use body or hand movements	.8	2.6	7.7	54.4	33.6	1.0	4.20
Use varieties of learning materials	1.3	1.0	13.3	61.0	23.1	.3	4.04
Teach moral education	1.8	.8	7.2	59.5	30.8		4.16
Encourage students even in their incorrect responses,	1.8	.8	1.8	60.8	34.9		4.26
Build relation with students	1.5	1.5	11.3	61.8	23.6	.3	4.05
Seat arrangements	2.3	1.5	5.9	58.2	31.8	.3	4.16

The data presented in Table 20 shows that the mean value of each question was a minimum of 4.04 to a maximum of 4.26, which is closer to the agreed response.

This means the majority of the teachers strongly follow the teaching-learning processes while managing the classroom.

CMP 2: Management of Students in Class

The management of students is another component of the classroom management practice of the teacher. This component included the eight variables which were asked on a six-point Likert scale. The frequency distribution presented in Table 4.17 shows that 90 to 95 percent of teachers agreed that they had compliance with the management of students in their CMPs. Similarly, the mean value of each variable shows that the minimum mean is 4.18 for the statement ‘If the disruptive behavior continues, I report it to the principal’, and the maximum mean value is 4.42 for the statement ‘Students stand up to greet me when I enter the class’. The average mean value is closer to the agreed response.

Table 23

Frequency Distribution of Management of Students in Class

Statements	SD	D	N	A	SA	NA	Mean
Greet students when I enter the classroom.	1.8	.5	5.4	51.0	41.3		4.29
Students stand up to greet me	1.8	.3	3.3	43.6	50.8	.3	4.42
Encourage well-managed behavior	1.8	.5	3.1	54.4	40.3		4.30
Disruptive behavior reported	2.3	1.5	7.7	52.3	35.9	.3	4.18
Students comply with my classroom norms.	1.8		3.1	61.3	33.6	.3	4.25
Encourage students to ask questions.	2.1		2.3	51.8	43.8		4.35
Teach my lesson first and then ask students to ask questions.	1.3	1.8	5.4	53.6	37.7	.3	4.25
Model discipline	2.1	.3	2.3	52.3	43.1		4.34

CMP3: Management of Group Dynamics

There are three components of classroom management practice in group dynamics. The mean value presented in Table 24 shows that the minimum mean value is 4.05, and the maximum is 4.20. On average, the mean value is closer to the agreed response of teachers.

Table 24

Frequency Distribution of Management of Group Dynamics

Statements	SD	D	N	A	SA	NA	Mean
Appoint class representatives and/ or monitors	2.6	2.3	10.8	51.3	33.1		4.1000
Divide the class into groups.	1.8	2.3	10.8	59.2	25.9		4.0513
Reward positive behavior of the students.	1.5	1.0	7.4	55.6	34.1	.3	4.2051

Similarly, the study also presented the frequency distribution in Table 24 shows that 84.4 percent of teachers believed that they appointed class representatives and/ or monitors to facilitate classroom engagement from the students. Similarly, 85.1 percent of teachers agreed that they divided the class into groups to improve the classroom learning environment. And 89.7 percent of teachers agreed that they rewarded the students' positive behavior. Likewise, 3% of the responding teachers did not reward the students when they achieved something better.

Hypothesis 2

H₁: Management of teaching and learning processes (MTLP), management of students in class (MSC), and management of group dynamics (MGD) contribute to CMPs.

Table 25

Factors Contributing to CMPs

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Beta		
	Std. Error			

MTLP	.333	.000	.338	909.526	.000
MSC	.334	.000	.363	912.672	.000
MGD	.333	.000	.418	1123.628	.000

H₁₂ stated that there was significant contribution of MTLP, MSC, and MGD to CMPs. Since the *P* values of MTLP (*P*=.001), MSC(*P*=.001), and MDG (*P*=.001) are less than .05 significant level, it was observed that the factors have a significant contribution to CMPs. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. In other words, MTLP, MSCC and MDG significantly contribute to TSE. Given that the idea of the test was to measure whether the factors contribute to over

Chapter Essence

This chapter examined the factors that contribute to TSE and CMPs. The exploratory factor analysis resulted in four factors contributing to TSE and three contributing to the CMP of Nepali public-school teachers. NTSE factors included efficacy on students' engagement, efficacy on instructional preparation, efficacy on behavioral competence, and efficacy on teaching skills. Likewise, CMPs had three major factors such as management of teaching-learning processes, management of students in the class, and management of group dynamics in the class. All the factors and sub-factors had a significant relationship with the main constructs of NTSE and CMPs. Hypothesis about factors contributing to TSE and CMPs were tested with the help of regression analysis resulting in the acceptance of the alternative hypothesis.

CHAPTER V
LEVEL OF AND RELATIONSHIP BETWEEN TEACHERS' SELF-EFFICACY
AND CLASSROOM MANAGEMENT PRACTICES

This chapter identifies 1) the level of TSE and CMP in Nepali public secondary schools and 2) find the relationship between the TSE and CMPs and their factors. The data were gathered on a 5-point Likert scale, and the levels were redefined as low, medium, and high. In terms of relationships, this study used Karl Pearson's Correlation Analysis, and the result was interpreted based on the -1 to +1 continuum range.

Level of Teachers' Self-Efficacy (TSE)

The study analyzed the level of TSE considering the cut-off value; if the mean is up to 2.33 means LOW, 2.33 – 3.66 means MIDDLE, and from 3.66-5 means HIGH LEVEL of TSE. There were four components of TSE calculated from the factor analysis. The data presented in Table 21 shows that the mean value of Efficacy on Student Engagement is 4.26. Similarly, the mean value of Efficacy in Instructional Preparation is 4.34, the mean value of Efficacy in Behavioral Competence is 4.27, and the mean value of Efficacy in Teaching Skills is 3.93, which is more than the 3.66 medium cutoff value indicating that the public school teachers have had a high level of self-efficacy.

Table 25*Level of TSE*

	N	Minimum	Maximum	Mean	SD	Level
Students Engagement	390	1.00	5.00	4.26	.47	High
Instructional Preparation	390	1.00	5.00	4.34	.59	High
Behavioral Competence	390	1.00	5.00	4.27	.56	High
Teaching Skills	381	.75	5.00	3.93	.82	High
<i>AVERAGE</i>	390	1.17	5.00	4.18	.50	High
<i>MEAN_TSE</i>						

Public school teachers are found to have a high level of self-efficacy in all four factors of TSE: instructional preparation, student engagement, behavioral competence, and teaching skills. The study also calculated the overall mean value of TSE, which is found to be 4.18. The value falls at a high level based on the cut-off value. The findings of this study are discussed in comparison with a study conducted in Jordan. The Jordanian study, with 566 public school teachers as its respondent, found that those teachers have higher levels of personally perceived self-efficacy (Mean = 3.15/4, SD = .70). Overall, on average, they have had moderate levels of general self-efficacy (Mean = 2.83/4, SD = 0.79), which supports the finding of this research (Abu-Tineh, Khasawneh, & Khalaileh, 2011).

To provide a detailed picture of an individual's self-efficacy level, the researcher has analyzed the individual responses through the descriptive statistics below.

Table 26*Disintegrated Descriptive Statistics of TSE*

Student Engagement		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	2	.5	.5	.5
	Medium	6	1.5	1.5	2.1
	High	382	97.9	97.9	100.0
Instruction Preparation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	6	1.5	1.5	1.5
	Medium	6	1.5	1.5	3.1
	High	378	96.9	96.9	100.0
Behavioral Competency		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	4	1.0	1.0	1.0
	Medium	9	2.3	2.3	3.3
	High	377	96.7	96.7	100.0
Teaching Skills		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	7	1.8	1.8	1.8
	Medium	53	13.6	13.9	15.7
	High	321	82.3	84.3	100.0
Missing	System	9	2.3		

Based on these results, in student engagement, .5 % (2 teachers) had low self-efficacy, 1.5% (6) teachers had a medium level of self-efficacy and 98% of the respondent teachers had high self-efficacy. This means that teachers feel good about their ability to engage students in the classroom. Likewise, for the instruction preparation, 1.5 % of teachers had low self-efficacy, and 1.5 had medium with the remaining 97% with high self-efficacy. From this, it can be stated that public school teachers have a higher level of efficacy beliefs in achieving the required results in Nepali public schools. While they have a high level of self-efficacy in Nepal and a Jordnian study by Abu-Tineh et al., (2011) substantiated this finding that the real case

of Nepal is different. Nepali public school education is infamous for its low student academic learning achievements.

Furthermore, in behavioral competency, 1% had low, 2.3% medium, and 96.7% had high levels of self-efficacy among public-school teachers in Nepal. This means that the teachers with low and medium self-efficacy need tailored professional development plans to develop their self-efficacy in instruction management. Finally, regarding teaching skills, 1.8% felt that they had low belief in their teaching skills, 13.6% felt they had a medium level of self-efficacy in their teaching skills and the remaining 82.3% had a high belief in their ability to effectively teach a classroom.

Level of CMPs of Teachers

The study also calculated teachers' classroom management practice level considering the cutoff value as above in Table 22. The mean value of Management of Teaching and Learning processes is 4.13, the mean value of Management of Students in class is 4.29, and the mean value of Management of Group Dynamics is 4.11, which are above the medium cutoff value, so they prove to have high level among the public-school teachers in Nepal in their CMPs.

Table 27

Level of CMPs

	Mean	SD	Level
Teaching and Learning Processes	4.13	.54	High
Students Management	4.29	.58	High
Group Dynamics	4.11	.67	High
AVERAGE MEAN_CMP	4.18	.53	High

Similarly, the average mean value of total CMP is 4.18, which is high based on the developed cutoff value, so it also indicates that public-school teachers had a high level of CMP. A previous study explained the effective CMP. Effective teaching

and students' learning depend on efficient classroom management (Jones & Jones, 2012). Classroom management refers to the efforts made by instructors to create an environment conducive to learning, social-emotional development, and interaction among students through the utilization of various methods entered on both the teacher and the students (Good & Brophy, 2000). Establishing guidelines, behavioral expectations, procedures, and routines; rewarding good behavior; employing reprimands; setting up physical space; and encouraging self-regulation are examples of such tactics (Jones & Jones, 2012; Reddy et al., 2016). Nepal's public education system has been heavily criticized for its lack of quality. Further exploration might be needed as both teachers' level of self-efficacy and CMPs have a higher value. To provide a closer view of individual respondents' perceived level of their self-efficacy, the researcher highlights a brief descriptive statistic below.

Table 28*Disintegrated descriptive statistics of CMPs*

Teaching & learning	Frequency	Percent	Cumulative Percent
Low	5	1.3	1.3
Medium	10	2.6	3.8
High	375	96.2	100.0
Students			
Management			
Low	7	1.8	1.8
Medium	2	.5	2.3
High	381	97.7	100.0
Group Dynamics			
Low	4	1.0	1.0
Medium	26	6.7	7.7
High	360	92.3	100.0

Under the CMPs, as depicted in Table 28, 1.3 % (5) teachers had low, 1.6% (10) teachers had medium, and 96.2% (381) had a high level in managing the teaching and learning processes inside the classroom. For student management, 1.8 % (7) teachers had low, 0.5% (2) teachers had medium, and 97.7 % had a high level in Nepali public schools. Furthermore, in managing the group dynamics, 1 % (4) teachers had a low, 6.7% (26) teachers had a medium, and 92.3 % (360) of teachers had a high level. In general, most of the public-school teachers in Nepal have a high level of managing classroom practices, with a small percentage of teachers having either a low or medium level in managing the classroom.

Relationship between NTSE and CMPs

The study analyzed the relationship between the NTSE and CMPs. The study applied Pearson's Correlation to find the relationship between the four components of NTSE and the components of CMPs.

Correlation between Factors of NTSE

The study used Pearson's correlation to see if there is a relationship between and among these four components of TSE.

Table 29

Correlation between Factors of Self-Efficacy

	Students Engagement	Instructional Preparation	Behavioral Competence	Teaching Skills	TSE Total
Students Engagement	1	.548**	.530**	.585**	.868**
Instructional Preparation		1	.681**	.307**	.815**
Behavioral Competence			1	.257**	.791**
Teaching Skills				1	.653**
					.000

** . Correlation is significant at the 0.01 level (2-tailed).

The data in table 29 shows that there was a positive and significant relationship between the Efficacy on Students Engagement and Efficacy in Instructional Preparation ($r = .585, P=.001$), Efficacy on Students Engagement and Efficacy in Behavioral Competence ($r = .53, P=.001$), Efficacy on Students Engagement and Efficacy of teaching skills ($r = .54, p=.000$), and Efficacy on Students Engagement and total teacher's self-efficacy ($r = .86, P=.001$) at .01 significant levels. Similarly, there was a significant correlation between Efficacy in Instructional Preparation and Efficacy in Behavioral Competence ($r = .68, P=.00$), Efficacy in Instructional Preparation and Efficacy of teaching skills ($r = .30, P=.001$), and Efficacy in Instructional Preparation and total teacher's self-efficacy ($r = .81, P=.001$). The statistical analysis also shows a significant correlation between Efficacy in Behavioral Competence and Efficacy of teaching skills ($r = .25, P=.001$), and

Efficacy in Behavioral Competence and total teacher's self-efficacy ($r = .79, P=.001$).

Finally, there was a significant correlation between Efficacy of teaching skills and total teacher's self-efficacy ($r = .65, P=.001$).

Correlation between Factors of CMP

The second important variable of this study is CMPs. There were three major components of CMP. The study ran the correlation between these components.

Table 30*Correlation between Factors CMPs*

	Teaching and Learning Processes	Students in the class	Group Dynamics	CMP Total
Teaching and Learning Processes	1	.740**	.664**	.924**
Students in a class		1	.723**	.927**
Group Dynamics			1	.822**
CMP Total				1

** . Correlation is significant at the 0.01 level (2-tailed).

The statistical result presented in Table 30 shows a positive and strong correlation among the components because the *P* value of each relationship is less than a .01 significant level, and Pearson's coefficient (*r*) value for each relationship lies between ± 0.50 and ± 1 .

Overall Correlation between NTSE and CMPs

The study measured the association between TSE and CMPs in total. The statistical value of correlation shows a significant correlation ($r = .64$, $P = .001$) between the teacher's self-efficacy and classroom management practice.

Table 31*Correlation between TSE and CMP*

		TSE Total	CMP Total
TSE Total	Pearson Correlation	1	.64**
	Sig. (2-tailed)		.000
	N	39	390
CMP Total	Pearson Correlation	.64**	1
	Sig. (2-tailed)	.00	
	N	390	390

** . Correlation is significant at the 0.01 level (2-tailed).

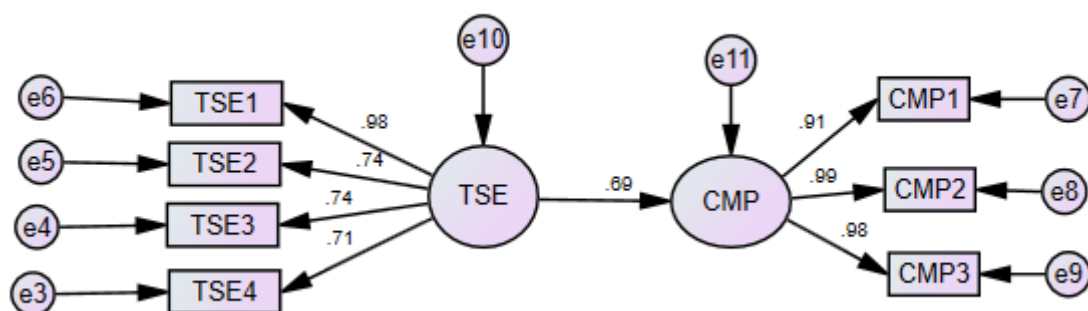
The result in Table 31 shows that if there is a change in teachers' self-efficacy by 1 point, it can change classroom management practice by .64 points. The result suggests a strong positive correlation between the TSE and CMPs. Therefore, we can conclude that if we improve the teachers' self-efficacy, it can positively contribute to the improvement of CMPs of teachers, resulting in an improvement in students' academic achievement and learning. Teachers need more capacity-building training and a motivational environment to improve their beliefs in terms of self-efficacy and their classroom management skills.

SEM for the Relationship between TSE and CMP

The study conducted the structural equation modelling (SEM) of TSE and CMP to explore the relationship between these two constructs further. The SEM is a widely used statistical method to study relationships based on different structures. The study used SEM to find the relationship between the factors associated with TSE and CMPs.

Figure 4

Structural Equation Modeling for TSE and CMPs



The value seen in the model (Figure 4) shows that all the path coefficients to the predicted latent variables are moderate to a high level (ranging from .69 to .99).

Similarly, the study also analyzed the regression to find the inter-relationship between the variables and their effect on each other. The data in Table 26 shows each relationship's estimate, SE, CR and *P* value. The following table helps us understand how the sub-factors contribute to the overall association between TSE and CMPs.

Table 32

Regression Weight and the Significance Level

			Estimate	S.E.	C.R.	P	Label
CMP	<---	TSE	.75	.05	12.86	***	par_6
TSE4	<---	TSE	1.00				
TSE3	<---	TSE	.96	.06	14.42	***	par_1
TSE2	<---	TSE	1.05	.07	14.45	***	par_2
TSE1	<---	TSE	1.01	.05	18.23	***	par_3
CMP1	<---	CMP	1.00				
CMP2	<---	CMP	1.23	.03	40.41	***	par_4
CMP3	<---	CMP	1.27	.03	39.42	***	par_5

The results of the regression weights are displayed in Table 32, and it can be seen that all eight of the indicators have a significant *P* value, meaning that it is lower than the value of 0.05 (the mark *** indicates numbers that are significantly lower than 0.05). Therefore, it is possible to assert that all eight items are legitimate according to the standards of the construct validity test. This demonstrates a significant association between the indicators and the constructs, which guarantees that the construct validity of the research is maintained.

Table 33

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
CMP	<---	TSE	.69
TSE4	<---	TSE	.71
TSE3	<---	TSE	.73
TSE2	<---	TSE	.73
TSE1	<---	TSE	.98
CMP1	<---	CMP	.90
CMP2	<---	CMP	.99
CMP3	<---	CMP	.98

The “estimate’ value of the factors is important to assess the relationship between the factors and the overall relationship. The loading is above .50 for all factors, which means that factors of TSE and factors of CMPs have an important contribution to measuring the relationship between TSE and CMPs.

Model Fitness refers to the model’s strength to reproduce the linkage with other data tested under similar conditions. A well-fitted model is required to ensure consistency before evaluating the linkages between the variables (Kenny, 2020; Shi & Lee, 2019)

Table 34

Model Fit Indices

Measure	Estimate
CMIN (Chi-square statistics)	245.421
DF (Degrees of Freedom)	13
CMIN/DF	18.879
CFI (Comparative Fit Index)	.925
RMSEA (Root Mean Square Error of Approximation)	.021
PClose (p value when RMSEA is > 0)	.000

The value of NFI (Normed Fit Index) is .92 which should be above .90, CFI (Comparative Fix Index) is .92 > .90, IFI (Incremental Fit Index) is .925>.90, and RMSEA is .02<.10. Therefore, the model fulfills the requirements. So, it is appropriate to build linkages between the factors and determine the contribution of variables in measuring the relationship between TSE and CMPs.

Effect of TSE in CMPs

The following table runs the regression analysis between the TSE and CMPs to see the effects of TSE in CMPs.

Table 35*Effect of TSE on CMP*

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	Durbin-Watson
1	.63 ^a	.39	.39	5.61	1.96

a. Predictors: (Constant), TSE_Total
b. Dependent Variable: CMP_Total

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8124.42	1	8124.42	258.08	.000 ^b
	Residual	12214.34	388	31.48		
	Total	20338.76	389			

a. Dependent Variable: CMP_Total
b. Predictors: (Constant), TSE_Total

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.38	2.61		5.11	.000
	TSE_Total	.64	.04	.63	16.06	.000

a. Dependent Variable: CMP_Total

The dependent variable (CMPs) was regressed on predicting variable TSE.

The independent variable TSE significantly predicts CMPs with $F(1, 258)=389$, $p<.001$. Moreover, the $R^2 = .39$ indicating that the model explains .39 % of the variance in CMPs. This means is that the level of self-efficacy possessed by Nepali teachers can affect the methods used for classroom management. This finding aligns with the findings that Gibson and Dimbo (1984), Anthony and Kristonis (2007), and Henson (2001) who concluded that TSE would help them to manage a classroom environment effectively.

Chapter Essence

This chapter calculated the level of NTSE and CMP. The researcher stated the mean value of each factor under TSE and CMP and compared them against the cutoff

value developed to assign whether the level was low, medium, or high. On average, Nepali teachers have a high level of TSE and CMP. However, when analyzing the individual responses, a small number of teachers were found to have a low and medium level of TSE and CMPs. Moreover, this chapter analyzed the relationship between the two constructs of TSE and CMPs and found that there was a strong positive relationship ($r = .64$) and $P = .001$. Furthermore, the relationship was further explained by confirmatory factor analysis. The hypotheses concerning the level of and correlations between TSE and CMPs were tested, which resulted in the rejected null hypothesis. That means, there is a high level of TSE and CMPs and there is a significant positive relationship between TSE and CMPs among public school teachers in Nepal. The chapter was concluded by analyzing the effect of TSE in CMPs, which showed that TSE explains 39% of the variance in CMPs.

CHAPTER VI
FINDINGS AND DISCUSSION

This chapter outlines the demographic information of the respondents and then discusses the findings of this study. The chapter begins by summarizing the study's major findings in response to research questions. I then discuss the factors of TSE and CMPs, their level, and relationships. Then, I compared the findings with the existing established knowledge.

Demographic Information

The table below presents demographic information of the respondents. The respondents represent the diverse characters of Nepali public school teachers.

Table 176

Demographic Information

Categories	Respondents		
	N	%	Cumulative %
Address			
Kathmandu	243	62.3	62.3
Lalitpur	78	20	82.3
Bhaktpur	69	17.7	100
Gender			
Male	222	56.9	57.7
Female	163	41.8	100
Total	385	98.7	
Caste			
Chhetri	107	27.4	28.1
Brahmin	173	44.4	73.5
Janjati	87	22.3	96.3
Dalit	3	0.8	97.1
Madhesi	10	2.6	99.7
Others	1	0.3	100
Education			
Bachelor Degree	78	20	21.5
Master Degree	273	70	97

MPhil	7	1.8	98.9
PhD	4	1	100

Age and Experience				
Category	Min. Age	Max. Age	Mean Yrs.	Std. Dev
Age	20	59	40.04	8.43
Experience	1	41	14.65	8.74

The study was conducted among 390 public school teachers from Kathmandu (62.3%), Lalitpur (20%), and Bhaktapur (17.7%). The percentage was calculated before the field visit based on the size of the total population of teachers involved in public secondary school. In total, 56.9% of male and 41.8% of female teachers participated in the study. The data shows a relatively good gender balance in terms of participation in this study. Likewise, 44% of the teachers were from Brahmin, 27.4 % from Chettri, and 22.3 % from Janajati caste categories participated in this study. In line with the share to the population ratio, teachers from the Brahmin community formed.

Regarding education, the majority of the teachers (70%) of respondents have completed Master's Degree, 20% of the respondents have Bachelor's degrees, and only 2% have completed M.Phil and Ph.D. In terms of age, the respondents aged 20-59 participated in this study with a mean age of 40 years. Similarly, teachers of varying levels of experience participated in this study. Some participants had one year of experience, while some had 41 years of experience, but on average, the respondents had 14 years of experience.

Findings of this Study

This study explored four factors that contribute to the TSE and three that contribute to CMPs. The factors contributing to TSE are efficacy in students' engagement, efficacy in instructional preparation, efficacy in behavioral competence,

and efficacy in teaching skills. Likewise, the factors contributing to CMPs are management of teaching-learning processes, student management, and group dynamics.

The study measured the 28 variables to measure the TSE, which were analyzed using SPSS software, the appropriateness of data for EFA was ensured through the statistical results of KMO and Bartlett's test of Sphericity. The KMO value was .93, and Bartlett's test for Sphericity was significant at a 0.05 level. Four factors were extracted for TSE. These four components could explain a total of 56.69% of the variance. To test the factors claimed by EFA, I used CFA, which showed a good model fit with RMSEA for TSE at 0.06, NFI value is .94, and TLI value is .96. The threshold of TLI and NFI is $>.90$.

Likewise, the study measured 23 variables to measure the CMPs of secondary-level public school teachers in Nepal. The study conducted the EFA to reduce the variables and did the grouping of these variables. The appropriateness of data was measured through KMO and Bartlett's test of Sphericity. The KMO value was .96, and Bartlett's test for Sphericity was significant at a 0.05 level. The factor analysis resulted in three factors of classroom management practice. These three factors explained 58.79% of the variance in classroom management practice.

The study also examined the level of TSE and CMPs. I used a revised rating stating 1 for LOW, 2 for MEDIUM, and 3 for HIGH to measure the level. The mean value was taken as a reference value to assign these levels.

Based on the findings, all four TSE factors had high levels among the teachers. The mean value ranged from 3.93 to 4.27. I analyzed the individual responses to see how many teachers had low, medium, and high levels. I found out that for the students' engagement, only .5 % (2 teachers) had low self-efficacy, 1.5%

(6) teachers had medium self-efficacy, and 98% of the respondent teachers had high self-efficacy. This means that teachers feel confident about their ability to engage students effectively in the classroom. Likewise, for the instruction preparation, 1.5 % of teachers had low self-efficacy, and 1.5 had medium, with the remaining 97% with high self-efficacy. From this, it can be assumed that public school teachers are better prepared for classes in Nepali public schools.

Furthermore, in behavioral competency, 1% had low, 2.3% medium, and 96.7 % high levels of self-efficacy among public-school teachers in Nepal. This means that although there are teachers who self-report that they have low or medium self-efficacy, who may be interested in enhancing their self-efficacy beliefs in all four factors. Finally, with regard to teaching skills, 1.8% felt that they had low belief in their teaching skills, and 13.6 % felt they had a medium level of self-efficacy in their teaching skills. The remaining 82.3 % had a high level of belief in their ability to effectively teach a classroom.

Likewise, CMPs had three factors with a high level of value. The average mean of teaching & learning process, student management, and group dynamics was 4.18. Individual factors' range was from 4.11 to 4.29. As stated above, the researcher analyzed the individual response through which the researcher could find the number of teachers with low CMPs. Under the CMPs, 1.3 % (5) teachers had low, 1.6% (10) teachers had medium, and 96.2% (381) had a high level in managing the teaching and learning processes inside the classroom. For the management of students, 1.8 % (7) teachers had low, 0.5% (2) teachers had medium, and 97.7 % had a high level in Nepali public schools. Furthermore, in managing the group dynamics, 1 % (4) teachers had a low, 6.7% (26) teachers had a medium, and 92.3 % (360) of teachers had high level.

The study also found that there was a positive relationship between TSE and CMPs. The correlation analysis showed a strong positive relationship between these two constructs with $r=.64$ and $P=.001$. The researcher also conducted a correlation between the factors of TSE and CMPs. The data shows that there was a significant positive relationship between the Efficacy on Students Engagement and Efficacy in Instructional Preparation ($r = .585, P=.001$), Efficacy on Students Engagement and Efficacy in Behavioral Competence ($r = .530, P=.001$), Efficacy on Students Engagement and Efficacy of teaching skills ($r = .548, P=.001$), and Efficacy on Students Engagement and total teacher's self-efficacy ($r = .868, P=.001$) at .01 significant levels. Similarly, there was a significant correlation between Efficacy in Instructional Preparation and Efficacy in Behavioral Competence ($r = .681, P=.001$), Efficacy in Instructional Preparation and Efficacy of Teaching Skills ($r = .307, P=.001$), and Efficacy in Instructional Preparation and total teacher's self-efficacy ($r = .815, P=.001$). The statistical analysis also shows a significant correlation between Efficacy in Behavioral Competence and Efficacy of teaching skills ($r = .257, P=.001$), and Efficacy in Behavioral Competence and total teachers' self-efficacy ($r = .791, P=.001$). Finally, there was a significant correlation between efficacy of teaching skills and total teachers' self-efficacy ($r = .653, P=.001$).

Likewise, among the classroom management factors, management of teaching and learning had a significant positive relationship with the management of students and management of group dynamics with $r=.74$ and $r=.66$, respectively. Management of students had a strong positive relationship with the management of the teaching-learning process and management of group dynamics with $r=.74$ and $r=.72$, respectively. Furthermore, the management of group dynamics had a strong positive

relationship with the management of students and the teaching-learning process with $r = .72$ and $r = .66$, respectively.

Finally, the researcher examined to see if there was any effect of TSE on CMPs. The researcher conducted regression analysis and found out that the R value is .63, R Square is .39, and adjusted R square is .39, indicating that the TSE explains 39% of variance in CMPs. The f-value is 258.08, and P value is .001, which is significant at a .05 significance level. It means the TSE can affect CMPs.

Discussion of the Findings

In this section, factors contributing to TSE and CMPs in Nepali public schools were discussed. Then the researcher discussed the findings of levels of NTSE and CMPs. And, then this chapter discussed the correlation between TSE and CMPs and the factors of these two constructs.

Factors that Contribute to NTSE: Relevant Nepali Education Sector

This study explored four factors that contribute to NTSE. Those factors include students' engagement, instructional preparation, behavioral competence, and teaching skills. These factors were extracted based on exploratory factor analysis results. The questionnaire was answered by Nepali public secondary level teachers, which is why this would be linked to the general Nepali public school context. The findings align with a study by Adhikari (2020) about teachers' belief in their self-efficacy among teachers of mathematics in Nepal. He identified engagement of students, management of the classroom, and instructional strategy as key factors that help develop efficacy beliefs. In addition, Adhikari (2020) mentioned that teachers expressed greater beliefs in terms of their self-efficacy in the instructional approach than they did in terms of the management of the classroom and the participation of the students. Likewise, Brouwers and Tomic (2001) found and validated three factors of

teachers interpersonal self-efficacy such as managing students behavior, eliciting support from colleagues, and eliciting support from principals.

Furthermore, it was shown that experienced instructors had much greater self-efficacy levels than rookie teachers (Adhikari, 2020). However, his study did not particularly look at the experience level of teachers and how experience could contribute to overall self-efficacy. Likewise, Ene et al. (2021) have identified three factors of TSE: engagement of students, teaching strategies, and management of students' behavior. They used an EFA followed by a CFA with a sample of 218 pre-service teachers in Nigeria. Since the study used an already established TSE scale developed in another context by Ma et al., (2021) the researcher believes that the instrument lacked the context of Nigeria. As Bandura (1997) stated, measuring self-efficacy must be context-specific and guided by local knowledge. While three of the four factors match the Ene et al. study, the fourth component of teaching skills seems more Nepal-specific. It further demonstrated that teachers' different backgrounds have different efficacy beliefs. A factor that furthers self-efficacy beliefs is teaching experience. Adhikari (2020) studied teaching experience as a factor, and the result demonstrated that self-efficacy is developed based on repetitive experience in teaching mathematics. This means that experienced teachers can implement instructional strategies better. Strictness in class is not effective for classroom management. Student-centric and participatory classrooms can better impact students' learning and achievement (Fives & Buehl, 2009). The other determining factor in self-efficacy beliefs is teachers' engagement. The study showed that teachers' efficacy is related to their commitment. Teachers with a strong sense of self-efficacy beliefs are more engaged in tasks emotionally, physically, and cognitively (Ene et al., 2021). Highly engaged teachers demonstrate a sign of determination, professionalism, and

commitment (Durksen & Klassen, 2012). It was noticed that experienced and permanent teachers at public schools felt that training programs focusing on developing teachers' self-efficacy is key to their effective professional development.

The discussion above demonstrated that efficacy in teaching skills is a new factor in the Nepali context. In Nepal, TSE could be increased by how well a teacher perceives his/her teaching skills. As per Bandura (1997), mastery of experience improves one's self-efficacy. This means that the more a teacher practices teaching, the more confident they will be in teaching students. As stated on Hofstede Insight website (n.d.), based on the Hofstede power dimension index, Nepali society is more hierarchical. This hierarchical feeling might have contributed to teachers feeling confident about their teaching skills. Likewise, other local cultural and diversity issues also impact the factors contributing to teachers' self-efficacy. Therefore, a research hypothesis indicated that efficacy in teaching skills is an important factor contributing to TSE in Nepal. The factors that contribute to TSE are discussed in the following headings.

Efficacy on Students Engagement: Prerequisite to Effective Learning

Efficacy of student engagement is a factor contributing to TSE. One of the priorities for teachers is to make sure that students are involved in learning processes and inspire them to be active actors in the classroom management processes. Sharkey (2008) has defined student engagement as cognitive, behavioral, and psychological involvement in academic activities and goals. It is important to highlight that teachers' self-efficacy is an antecedent of student engagement. How teachers engage students to enhance their learning has a direct impact on teachers' overall self-efficacy.

The current study outlined nine variables under this factor, with a strong mean value ranging from 4.22 to 4.33. Teachers' confidence in their ability to improve

student achievement and hold students' attention while carrying out teaching-learning activities are key highlights.

Students' engagement is a factor that this study identified to have contributed to TSE. Teachers' ability to collectively work with students and help them become active learners significantly improves TSE. This statement is in line with Iqbal (2010), who claimed that TSE is a function of classroom management, student engagement, and teaching strategies. Academic learning and achievement remain sustainable when learning is considered to be an interactive as well as a dialogic process. In line with constructivism theory, students should be allowed to construct their knowledge by understanding and interacting with the world around them. In the case of Nepal, it is important to embrace student engagement as a key pillar of the education system.

Efficacy on Instructional Preparation: More You Prepare, More You Produce

Instructional preparation is another factor that contributes to TSE. Instructional preparation is a teacher's ability to prepare in advance of their teaching. In Nepal, public school teachers are required to prepare lesson plans. The lesson plan is a strategy for instructional preparation. The idea of this factor is that the more you prepare, the more confident you will be, improving your efficacy. One of the sources of self-efficacy, as per Bandura, is mastery experience. A teacher who prepares for the class will be more confident in managing teaching and learning processes better. A teacher's performance depends on how well his students perform in the class and as measured by any quantitative indicators. Based on this study, instructional preparation includes indicators such as how experience contributes to the confidence in teaching, lessons planning, ability to get through difficult topics, designing course work, managing difficult students, and completing a course on time. These indicators are reflected in other literature, such as instructional strategies. The finding of this study

aligns with Tschannen-Moran et al. (1998). They stated that being persistent in solving difficult teaching topics, making sure that students remain motivated and goal-oriented, and having an idea about how to manage the coursework significantly impact TSE. Hence, efficacy in instructional preparation is a factor that contributes to TSE and impacts students' academic achievement.

Efficacy on Behavioral Competency: A Need of the Hour for Nepali Teachers

The third factor to contribute to TSE is behavioral competency. For this study, behavioral competency would mean teachers' competencies in a teaching context. Behavioral competency refers to attributes like effective teamwork, skills, knowledge, and technical know-how that can influence an individual's development in an organization. In the case of teaching, the researcher referred to behavioral competency as behaviors that teachers apply to make the teaching and learning process effective and meaningful for students. As stated by social learning theory, teachers teaching competence can be enhanced through the reflexive and dynamic interactions that they embrace. Nepali public school teachers' behavioral competency can largely impact their self-efficacy beliefs and their classroom management practices.

Martin et al. (2008) shared that teachers' characteristics might influence their efficacy. Likewise, Fives (2003) shared that maintaining high learning attitude and positive behaviors among teachers is key to successful classroom management. As discussed, successful classroom management is a component of behavioral competency. As guided by Bandura's social cognitive theory, teachers' confidence in their technical expertise to deal with potential changes is required to ensure student-centric approaches, which are important to implement effective educational activities and practices (Rodríguez et al., 2009). Thus, the behavioral competency of teachers is a factor that significantly contributes to TSE.

Efficacy in Teaching Skills: A New and Important Factor for Public School Teachers

This is the fourth factor of NTSE. In most of the literature as stated above, there are only three factors that teach self-efficacy. This study came up with the fourth factor, which the researcher believes is a result of being context-specific, as Bandura suggested (1997). Teachers can achieve desired results in students' learning and achievement by using knowledge of content combined with teaching skills and self-efficacy beliefs in their capabilities to apply effective instructional practices (Duffin et al., 2012). In this study, teaching skills have items such as principals, parents, school management committee, students, and parents being happy with teachers' teaching skills. This factor is more related to the self-efficacy source of verbal persuasion. The reactions to teachers' good teaching contribute to their self-efficacy. Therefore, teaching skills contributes to TSE and are key factors to students' learning and academic achievement. As stated by social cognitive theory as well as constructivism, teachers continued engagement and interaction with their surrounding world contribute to the improvement of teachers' self-efficacy.

In conclusion, many variables, directly and indirectly, affect the teacher's self-efficacy. Although the EFA extracts four factors as outlined above, there are other variables that might fall into one of those factors. Those variables include support and encouragement from the school management committee, students, and guardians, providing teachers training regularly with emerging teaching trends, and availability of teaching and learning materials. Coordination and collaboration between the teachers, their continued exchange of knowledge and approaches, and regular interaction with parents and school management committee can improve their motivation, resulting in improved self-efficacy. Fair and independent monitoring and

evaluation of work progress and teachers' performance can support to increase teachers' self-efficacy.

Management of Teaching and Learning, Students, and Group Dynamics

Contribute to CMPs

The exploratory factor analysis identified three major factors that contribute to the classroom management practice of teachers. Those are the management of teaching and learning processes, the management of students in the class, and the management of group dynamics. Management of teaching and learning processes indicates that a teacher should use practical teaching methods so that students can obtain the required skills to succeed in their academic life. In terms of the management of students in the classroom, it is important that teachers encourage students to participate in extra-curriculum activities, inspire them to be involved in physical activities, arrange a reward system for those who perform better and encourage others to improve. Moreover, it is important that the teachers display friendly behavior with students, encourage a student-friendly environment, inspire cross-collaboration among students, and create a respectful academic environment. Finally, management of group dynamics states that teachers should deliver the lessons considering students' social, cultural, linguistic, and belief systems of their surrounding community. Occasional education tours of students to gain new knowledge, build good camaraderie, share the moral story with each other, share cultural values and national roles as civilized citizens can encourage the students to be a good team player in the classroom.

Drawing the learning from Hofstede (2015) cultural dimension framework, first off, Nepal has a diverse population in terms of culture and ethnicity, thus classes are likely to have students from various cultural backgrounds. Due to the fact that

students may speak different languages or have different dialects or accents, this diversity may have an impact on how communication is managed in the classroom. Second, community harmony and interdependence are highly regarded in Nepal due to the country's cultural belief in collectivism. Students may be less prone to question authority or speak out against their peers in order to maintain peace, which can have an impact on classroom management in terms of discipline. Because children could be less receptive to more conventional methods of discipline, including punishment or rewards, this might make it challenging for teachers to control conduct in the classroom. Thirdly, Nepal has a long history of respecting hierarchy and those in positions of authority, which is seen in the power distance dimension in Hofstede's 6-D framework. It could be anticipated that teachers largely drive all decisions in the classroom, and as a result, students may be less inclined to oppose the teacher's authority or raise questions about it.

The findings of this study are supported by previous works of literature. For example, Basar (2005) and Uysal et al. (2014) identified four categories of classroom management such as physical order, management of instruction, management of time, management of communication, and management of behaviors. The following three factors this study extracted cover all of the factors extracted in Basar (2005) and Uysal et al.'s (2014) study. For example, instruction management and management of time fall under the management of teaching and learning processes. Likewise, the management of communication and physical order come under the management of group dynamics. Furthermore, the management of behavior comes under the management of students. Kaplan (2018) developed teachers' classroom management skills, including the physical arrangement of classroom, communication and

behavioral arrangement, management of time, and program-plan activities sub-dimensions.

Mutual respect and understanding are important aspects of climate in the classroom that represent a stimulating learning environment (Pedro & Miller, 2006). Additionally, they stated that it is important to understand the child's family and culture so that the instructor may include the learners' cultural beliefs and family history in learning and teaching. Teachers are the leaders in ensuring that the educational process is in line with the socio-cultural realities of where the school is located (Saricoban, 2006). The number of students in a class is also a determinant of students' academic achievement. The factors identified by this study are explained under the following headings.

Management of Teaching Learning Processes: Optimizing the Usage of Limited Resources

A teacher should have many skills and qualities to manage the classroom effectively. A teacher should know the learning status of each student and encourage them to improve their learning achievement. This factor indicates that teachers should be capable enough to map the needs of students and be able to utilize available resources to meet those needs. According to Munna and Kalam (2021), the teaching and learning process is transforming knowledge from teachers to pupils. Traditional teaching approaches are expected to be transformed into innovative strategies in schools by offering enough incentives and conveniently available teacher tools.

This factor was also supported by previous research. A study conducted in Nepal discovered that the availability of resources and their application by teachers in high schools had a beneficial influence on student achievement (Subedi, 2000). Similarly, Brush et al. (1999) discovered a positive association between student

achievement and the provision of various computer-based resources that teachers use during teaching activities. Another study done in Florida by Alkadry and Nyhan (1999), discovered that increasing student resources in the classroom enhances their performance. Educating instructors on the proper use of teaching resources is critical to improve school learning output. Teachers still bear a considerable responsibility for effectively using teaching materials, but the availability of resources varies by school.

In conclusion, teaching and learning processes include being considerate of the methods used by teachers to the suitability of learners. Some learners might be good at learning with projection, while people with visual impairment might need another teaching method. So, teaching and learning management positively contributes to the overall management of classroom practices.

Management of Students in the Class: A Critical Stakeholder in Classroom

In line with constructivism theory, teachers who can put learners at the center of knowledge creation, could be good at CMPs. Management of students is another factor contributing to CMPs. When creating programs, classroom activities, and instructional materials, it is crucial to consider students' needs and personality traits. The demands and features of the students are also crucial in managing the classroom since good classroom management is strongly related to effective instruction. According to Jones and Jones (2001), effective teaching requires high standards, engaged students, collaborative learning, and the inclusion of students from various cultural backgrounds.

Teachers are expected to experience fewer issues with classroom management by implementing student- centric approaches (Saricoban, 2006). Additionally, it is important to understand the child's family and culture so that the instructor may include the learners' cultural beliefs and family history in teaching and learning. It is

the responsibility of the teacher to plan the educational process in light of the conditions in the classroom, school, and community (Saricoban, 2006).

Management of students is an art, and it should be a key element for teachers to master as they implement their classroom management skills. Therefore, the management of students in terms of their expectations, disruptive behaviors, and seating arrangements is key to effective CMPs. This factor is significantly contributing to the overall CMPs of Nepali public school teachers.

Management of Group Dynamics: A Life Skill

Group dynamics is another factor that impacts CMPs. Appropriate seating arrangements, ensuring learner-friendly classroom climate, and providing suitable guidance are key factors to effective classroom management. Group dynamics, especially in the case of group work, is essential to classroom management. Teachers, as the classroom manager, should ensure that they address any stress among the students, improve group relationships, and address students' emotional and social states. Classes demonstrate unity and a sense of purpose, less chaos, and conflict, providing better learning opportunities, and as a result, students thrive (Adelman & Taylor, 2005). Respect for each other and understanding of issues are important aspects of classroom climate that can stimulate a positive learning environment (Pedro & Miller, 2006). This is a strategy to establish an open learning atmosphere for the students, in which they are eager to explore new learning content and exchange ideas with one another. It is essential to cultivate an appropriate environment within the classroom. To succeed in this endeavor, the teacher must manage their classroom in a manner that emphasizes the development of positive and fruitful working relationships with the students.

When it comes to education, democratic leadership in the classroom denotes that the instructor is considered a member of the classroom community. This means that the instructor engages in dialogue with the students, participates in classroom activities, and offers direction but does not attempt to govern. Students are more likely to accept the same job, take responsibility for their school tasks, establish higher learning standards, and be encouraged to achieve when teachers behave in this manner (Saricoban, 2006). For this reason, understanding group dynamics is essential to effective classroom management for teachers.

In conclusion, classroom arrangement of teaching and learning materials, seat arrangement, and a wide, clean, and ventilated room are the requirements for a classroom. Teachers are the academic leader of a classroom, so they should create a student-friendly environment in the classroom – teachers should know each student by their name, perform disciplined behavior with students, and provide appropriate access and opportunity to all students in learning materials and processes. For the effectiveness of the teaching and learning process, the teacher should divide the groups of students and share the roles and responsibilities of each student. The teacher should equally treat both the talented and weak students in a classroom so that all students feel valued in the classroom. A teacher should adopt the student-centered teaching method. Teachers should keep abreast of the emerging trends of current knowledge on their teaching subject so that they can transfer knowledge to the students resulting in improved CMPs, which impact students' academic achievement and learning.

Level of Teachers' Self-Efficacy (TSE) and Classroom Management Practices (CMPs)

In this section, the researcher described the level of NTSE and CMPs among Nepali public secondary level teachers. The level would denote teachers' perceived self-efficacy and management of classroom ability at the time of the survey. The study identified three levels; low, medium, and high. A high level of self-efficacy denoted that teachers were extremely confident in terms of their ability to bring about desired results in students. Likewise, the high-level of classroom management meant the teachers' ability to manage the classroom effectively. The following sections describe the levels of TSE and CMPs.

Level of Teachers' Self-Efficacy (TSE)

Since Albert Bandura first presented the idea of self-efficacy through the social learning theory in the 1970s, it has grown in significance among educational academics. It is the confidence a person has in his or her capacity to carry out a task or behavior necessary to accomplish a specific goal. Each person's level of self-efficacy is unique (Bandura, 1997). TSE is a key phenomenon that may be considered one of the factors that contributes to learning and effective teaching. Teaching efficiency has been linked to several variables, including teacher efficacy (Nurindah et al., 2019). TSE is an important psychological construct that determines how a teacher thinks, behaves, and expresses emotions (Pendergast et al., 2011). Upadhyaya (2019) stated that science teachers' self-efficacy was high. This study found out that the overall public school teachers have reported that they have a high level of TSE. This means they feel confident in bringing about desired results in their students' learning and achievement. This finding, however, does not support the reality of the students achievement and learning in Nepali public school education. The

performance of 66% of public school students is under satisfactory level (Chapagain, 2021). A macro analysis on Nepali education found out that lack of adequate school infrastructure, availability of textbooks, distance from schools to homes, outdated and centralized curriculum, teachers, lack of critical pedagogical approaches, and political interference in public school system impact the quality of public education in Nepal (Parajuli & Das, 2013). Therefore, this can be reasonably stated that TSE is one of the many factors contributing to students' academic learning and achievement.

Efficacy in Students Engagement is a factor extracted for TSE through factor analysis. The frequency distribution and mean value of each variable show that the minimum mean value was 4.22 for 'I am confident that my teaching increases the student achievement and motivation', and the maximum mean value was 4.33 for 'I can deliver the lessons smoothly by holding students' attention', regarding the teacher's efficacy in student engagement. The average total mean value of Efficacy on Students Engagement is 4.2691, which is more than the 3.33 cutoff value, indicating teachers's high level of self-efficacy. A study conducted by Capara et al. (2006) stated that students feel motivated and goal-oriented in an environment created by a teacher with high efficacy. Higher levels of self-efficacy among teachers result in more successful teaching, which raises students' motivation levels and improves academic performance. In addition, another literature stated that self-efficacy is essential for instructors to complete their objectives, tasks, and how they address educational problems. Teachers with low self-efficacy tend to avoid challenging work, interpret most things pessimistically, and lose faith in their capabilities. They also view creative work and situations as being difficult to complete. Teachers with a high level of self-efficacy are more likely to embrace challenging jobs to overcome,

cultivate a greater feeling of enjoyment in their profession, put strong commitments, and bounce back fast from failures (Hussain & Khan, 2022).

Efficacy in Instructional Preparation is another element of a teacher's self-efficacy. The six variables measure teachers' efficiency because it asks about the confidence in teaching and dealing with difficult topics, timely preparation of teaching materials and completion of syllabus, effectively design the classwork, and manage the students. The frequency distribution shows that more than 90% of teachers accepted their level of efficiency in performing classroom teaching and learning activities effectively. The mean value is a minimum of 4.30 and a maximum of 4.40. The mean value is close to agree and strongly agree with the teachers' questions. The total average mean value of Efficacy in Instructional Preparation is 4.34, which is more than the 3.33 cutoff value, indicating that the level of instructional preparation amongst the teachers was high. In a study conducted by Kavita and Dahiya (2018), they concluded in their experimental investigation that the use of multimedia educational packages is one way that the self-efficacy of prospective teachers can be improved. Educators proficient in using online instructional methodologies were able to give high-quality instruction, which, in turn, led to a prosperous classroom environment (Mahmood, 2020).

Efficacy of behavioral competency is another factor that contributes to NTSE. The frequency distribution shows that all teachers responded positively to their Efficacy in Behavioral Competence. More than 90% of teachers believed that they could relate the teaching topic with students' real-life for better learning with a 4.22 mean value. The descriptive analysis shows that the minimum mean is 4.10, and the maximum mean is 4.40. The average total mean value of Efficacy in Behavioral Competence is 4.27, which is more than the 2.33 cutoff value, indicating teachers'

high level of self-efficacy. The items such as teachers' ability to relate teaching topics with a real-life scenario, soliciting support from principals, taking names of students, and showing respect to teachers are under this factor. A study conducted by Yesilyurt (2014) suggested that teachers' competency belief positively contributes to TSE beliefs, which contribute to teachers' professional growth.

Efficacy in teaching skills is found to be higher in Nepali public school teachers. The frequency distribution shows that around 85% of teachers agreed on their teaching skills. The mean value shows that a minimum of 4.20 to a maximum of 4.23, which is close to the agreement in general. The average mean value of Efficacy in Teaching Skills is 3.93, which is more than the 3.33 cutoff value, indicating teachers' high level of self-efficacy.

The number of years spent teaching students online is directly correlated to a large rise in the sense of confidence regarding one's own technological and computing abilities (Ma et al., 2021). In the most recent epidemic, many teachers who participated in the research revealed that they had neither been familiarized with online instruction nor had gotten any training before beginning to teach online classes (Ma et al., 2021). As a result, there is an immediate want for more training in the development and execution of online courses. The goal of the training should be the development of online teaching skills for teachers, which might boost their overall online TSE, in particular concerning instructional techniques, management of the classroom, and student engagement (Idleman & Richter, 2017). During COVID-19, teachers were actively engaged in professional capacity development by utilizing ICT as a key area for motivation and nurturing online teaching practices (Toto & Limone, 2020). It was also observed that the utilization and application of any new technology

depend on the level of trust teachers have in their technical abilities and their beliefs regarding the significance of ICT for educational purposes (Donnelly et al., 2011).

In conclusion, the perceived self-efficacy level of public school teachers is high. Although TSE impacts students' academic achievement and learning, it is not the only factor that can bring about all positive results in achievement and learning. Other issues such as school climate and infrastructure, availability of textbooks, centrally dictated school curriculum, political interference in public schools, and distance from school to home could well impact students' academic learning and achievement (Parajuli & Das, 2013).

Level of Classroom Management Practices (CMPs)

Classroom management includes the teacher's capability to provide well-structured and organized teaching learning environment where students are able to engage in academic learning activities (Pianta & Hamre, 2009; Schlesinger & Jentsch, 2016). Effective classroom management results in improved student learning and achievement (Seidel & Shavelson, 2007). This study found that Nepali teachers perceived classroom management practices was high. A study conducted in Jordan aligns with the findings of this study. Poulou et al. (2018) stated that CMP scores on the three CMP instrument factors were higher among Jordanian school teachers. The researcher, however, thinks that despite having a higher level of classroom management, the overall quality of the public education sector remains dismal. Although teachers' CMPs play a vital role in the students learning and achievement, it is not the only factor. To improve students' academic achievement and learning, other factors such as proper school building, availability of textbooks, contextualized curriculum, and student centric teaching pedagogy should be followed (Parajuli & Das, 2013). Knowing that CMPs among public school teachers is good, the focus can

now be turned into other structural reasons as stated above to better improve public school education in Nepal.

Management of teaching and learning process included nine items that were asked to measure how well Nepali public school teachers manage teaching and learning environment. Approximately 90% of teachers reported that they effectively manage the teaching and learning environment in the classroom. The mean value of each question was a minimum of 4.04 to a maximum of 4.26, which is close to the agreed response. The average total mean value of management of teaching and learning process is 4.13, which is above than 3.66 cutoff value, indicating that public school teachers in Nepal perceive themselves as having a high level in managing the teaching and learning process in the classroom.

Teachers are classroom managers. One of their responsibilities is to ensure that the available resources are effectively used to meet the academic goals set by a school (Isuku, 2018). The teacher should create a good classroom learning environment to ensure students' maximum involvement. Teachers 'motivational strategies greatly help students be involved in learning and develop learning strategies (Lawrence, 1993). Numerous studies have demonstrated that teachers who tend to have stronger self-efficacy are more enthusiastic and pleased with their teaching, open-minded, accepting innovative ideas, and eager to apply new teaching techniques (Guskey, 1988; Tschannen -Moran & Hoy, 2001). In brief, teaching practices and attitudes toward the educational process are influenced by self-efficacy beliefs, which have an impact on both the quality of teaching and learning (Achurraa & Villardónb, 2013).

Management of students in the classroom is another factor under CMPs. Up to 90 to 95 percent of teachers agreed that they had compliance with the management of students in class in their classroom management practice. Similarly, the mean value of

each variable shows that the minimum mean is 4.18 for the statement 'If the disruptive behavior continues, I report it to the principal', and the maximum mean value is 4.42 for the statement 'Students stand up to greet me when I enter the class.' The average mean value is close to the agreed response. The average mean of management of students in class is 4.29, which is above than 3.66 cutoff value, so it indicates the high level of management of students during the classroom management practice of teachers. Good classroom management involves teachers' tactics that optimize counseling and behavioral approaches to assessing and resolving students' erroneous behaviors, as was mentioned in the prior literature. These strategies are a part of managing a classroom effectively (Iqbal, 2010; Margaret, 2014). The teachers must look out for their students, particularly the younger ones in the classroom (Sehgal, 2015). Teachers with high levels of self-efficacy are more likely to use proactive, student-centered classroom behavior tactics, effectively manage various challenging student behaviors, and develop strong relationships with their students (Zee & Koomen, 2016).

Management of group dynamics is the third factor contributing to Nepali teachers' better CMP. Approximately 84.4 percent of teachers believed that they appointed class representatives and/ or monitors to facilitate classroom engagement from the students. Similarly, 85.1 percent of teachers agreed that they divided the class into groups to improve the classroom learning environment. And 89.7 percent of teachers agreed that they rewarded the students' positive behavior. The average mean of management of group dynamics is 4.11, which is above than 3.66 cutoff value, indicating the high level of management of group dynamics during the classroom management practice of teachers.

Relationship between TSE and CMPs

The third research question for this study was to identify the relationship between TSE and CMPs. The result demonstrated that there was a significant positive correlation between the students' engagement, and instructional preparation ($r = .58$, $P=.001$), efficacy on students' engagement, and efficacy in behavioral competence ($r = .530$, $P=.001$), efficacy on students' engagement and efficacy in teaching skills of self-efficacy ($r = .548$, $P=.001$), and efficacy on students' engagement and total teacher's self-efficacy ($r = .868$, $P=.001$) at .01 significant levels. Similarly, there was a significant positive correlation between efficacy in instructional preparation. Efficacy in behavioral competence ($r = .68$, $P=.001$), efficacy in instructional preparation and efficacy in teaching skills of self-efficacy ($r = .307$, $P=.001$), and efficacy in instructional preparation and total teacher's self-efficacy ($r = .815$, $P=.001$). The statistical analysis also showed a significant correlation between efficacy in behavioral competence, and efficacy in teaching skills of self-efficacy ($r = .55$, $P=.001$), and efficacy in behavioral competence and total TSE ($r = .79$, $P=.001$). Finally, there was a significant correlation between efficacy in teaching skills of self-efficacy and total teacher's self-efficacy ($r = .65$, $P=.001$).

The study analyzed the overall relationship between the TSE and CMPs in total. The statistical value of correlation shows a significant positive correlation ($r = .64$, $p = .000$) between the teachers' self-efficacy and classroom management practice. The result shows that if there is a change in teachers' self-efficacy by 1 point, it can change classroom management practice by .64 points. The result suggests that there is a positive correlation between these variables and indicates that if we improve the teacher's self-efficacy, then it can positively contribute to the improvement of classroom management practice of Nepali public school teachers.

The regression weights demonstrate that all eight of the indicators have a significant *P* value because it is greater than 0.05 and lower than that value. Therefore, it is possible to assert that all eight items are legitimate according to the standards of the construct validity test. In a similar vein, the value of the NFI is .92, the RFI is .87, the IFI is .92, and the TLI is .87; hence, the model is considered acceptable. The regression analysis between the TSE and CMP shows that *R* value is .63, *R* Square is .399, and the adjusted *R* square is .398, which indicates that the TSE can affect classroom management practice by 39.8%. This study shows the relationship between the factors associated with TSE and CMPs. The values in the model demonstrate that coefficient values for predicted and latent variables are moderate to high levels (ranging from .69 to .99). Similarly, the study also analyzed the regression to find the inter-relationship between the variables and their effect on each other. The data in Table 4.31 shows each relationship's estimate, SE, CR, and *P* value. This study demonstrated the relationship between the factors associated with TSE and CMPs. The value seen in the model proved that the coefficient values to the latent variables are considered moderate to a high level.

Previous literature confirms the findings of this study. A study conducted among 566 public school teachers in Jordan found that personal TSE and the instructional management style had a relatively strong ($r = 0.423$), positive, and significant ($P = .001$) correlation. Additionally, there was a moderately positive ($r = 0.360$) and a significant ($P = .001$) association between personal TSE and behavior management. Furthermore, a correlation between personal TSE and people management was close to moderate ($r = 0.350$), positive, and significant ($P = .001$). Finally, it was found that there was a significant correlation between teacher efficacy and CMP, which was moderate ($r = 0.472$), positive, and significant ($P = .001$) Abu-

Tineh et.al., 2011(. Similarly, a study that investigated the link between teachers' sense of self-efficacy and the methods they use in the classroom found a correlation that could be considered statistically significant between the two factors. It was shown that there was a substantial positive link between TSE and the utilization of preventative methods ($r = 0.51, P=.001$) (Mitchell, 2019).

Teachers with stronger self-efficacy tend to be more effective at putting the skills relevant to the management of a class to use (Goddard et al., 2004). Effective educators make optimal use of the various tools available to them to maintain a classroom environment that is well-organized, well-structured, and focused on the students (Kritsonis & Anthony, 2007). Henson (2001) stresses that the relationship between managing a classroom and TSE denotes how teachers plan expectations for themselves to be successful in a classroom environment. Given that a person's perceptions about their performance in class may be influenced by their behavior in class, these interactions could very well be considered circular (Henson, 2001). Another TSE study concluded that students rated their teachers' ability to teach more effectively when the teachers had greater levels of overall efficacy (Achurra & Villardon, 2012). Shahzad and Naureen (2017) found a substantial correlation between the academic success of pupils and the sense of self-efficacy that their teachers had (as measured by student engagement and instructional strategies). It has been shown that teachers with stronger self-efficacy can increase their students' academic success (Shahzad & Naureen, 2017).

Research conducted by Rodriguez et al. (2014), who investigated TSE and its relationship with students' motivation in higher education, came to a somewhat different conclusion. They concluded that there was no correlation between TSE and these characteristics. A total of 1924 students and 95 teachers from various public

universities in Spain participated in the study as part of the sample population. The outcomes of that study indicated that teachers who rated their sense of self-efficacy as intermediate had a greater number of pupils who desired to learn compared to teachers who rated their sense of self-efficacy as high. According to Noe and Wilk (1993), teaching self-efficacy has been positively related to various professional development practices. It was seen that teachers' views about their efficacy signaled what they should implement in class-related activities, decision-making, and others. Due to this, teachers' efficacy helps to reinforce their classroom practices. According to a study, the relationship between ELT teachers' feelings of efficacy and their teaching is not statistically significant. In addition, it was observed that in order for teachers to practice teaching in a satisfactory manner, they need to construct and differentiate their teaching practices based on the requirements and goals of the students they are instructing (Khanshan & Yousefi, 2020). According to the findings of a study that was carried out in Myanmar, high levels of teacher efficacy are correlated with high levels of classroom management methods. In addition, such educators have a greater propensity to acquire and implement novel instructional methods and strategies and employ efficient leadership practices (Lay, 2022). An additional study that was carried out in a junior secondary school in Botswana revealed that teachers who held a post-graduate diploma in education rated themselves higher in terms of teachers' capability to cultivate an environment for students' learning compared to their other colleagues who held a variety of qualifications. The findings for both the efficacy of instructional tactics and classroom management were comparable (Dibapile, 2012).

Hasan (2019) explored TSE's influence on students' achievement scores. A total of 1100 male respondents from the District Kasur, which is located in the Lahore

Division, participated in the study. Of those participants, 300 were secondary school teachers, and 800 were students. The study investigated the effectiveness of multilingual instruction on students' academic achievement. The regression analysis results indicate that overall, TSE has affected students' achievement scores by a factor of 65%. In contrast, students' engagement has affected students' achievement scores by a factor of 59%, educational strategies have affected students' achievement scores by 60%, classroom management has affected students' achievement scores by 59%, and teachers' medium of education has affected students' achievement scores by a factor of 30%)Hassan, 2019(. In a similar vein, in an Australian study involving 395 primary and secondary school teachers, it was discovered that the classroom management self-efficacy of teachers was positively correlated with aspects of their perceived classroom management, particularly in the early stages of their careers (Lazaridesa et al.,2020). These studies support my research findings that there is an intricate link between TSE and CMPs, resulting in improved student academic achievement.

In conclusion, these findings of the study are supported by previous research studies. There is a positive and significant association between the self-efficacy of teachers and the management strategies they use in the classroom. In the context of Nepali public schools, the findings lend credence to the statement that TSE can affect classroom management techniques and that an enhanced level of both of these factors can contribute to students increased academic accomplishment and learning.

Chapter Essence

This chapter presented the findings of the study, which were obtained through quantitative analysis. The discussion part exhibited the findings, compared those with existing literature, and provided a summary. The chapter particularly discussed the

factors that contribute to NTSE and CMPs to improve the quality of public education in Nepal. Unlike in the literature, this study found a new factor contributing to TSE. This new factor is efficacy in the teaching skill of teachers. Given Nepali teachers' emphasis on attending a classroom, it might be a result of a context-specific self-efficacy belief, as stated by Bandura in 1977. The chapter also discussed the level of TSE and CMPs while examining the levels of individual factors under those constructs. The researcher believes that although the level of TSE and CMPs is high among Nepali public school teachers, those are not the only factors that could improve the quality of the overall education system. Finally, the chapter discussed a positive and strong relationship between the TSE and CMPs and their components. Almost all the works of relevant literature support a positive and strong/significant relationship between TSE and CMPs.

CHAPTER VII

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This study outlined factors contributing to TSE and CMPs in chapter IV. In Chapter V, the researcher discussed the level and correlation between TSE and CMPs. The researcher then presented and discussed the findings of chapters IV and V in chapter VI. In this chapter, the researcher summarizes the thesis by connecting the research problem with the findings, following conclusions and implication of this study.

Summary of the Study

Self-efficacy can be defined as an individual's attitude toward their abilities and cognitive skills. There is a considerable relationship between a teachers' self-efficacy and instructional practices' planning, tactics, and development. It affects the aims and goals that teachers set, the activities and evaluation procedures that they employ, and the amount of work they are willing to put forth to try to achieve those objectives and goals. Despite teachers' self-efficacy and classroom management practices being the ostentatious issues in the Nepali education sector, there have not been many studies exploring the factors contributing to measuring the levels of and establishing the relationship between these two constructs. Although teachers' self-efficacy and classroom management practices are well-researched topics internationally, their findings may not be applicable to Nepali practitioners. As stated by Bandura, the measurement of teachers' self-efficacy should be context-specific rather than a generic phenomenon. Therefore, the researcher developed Nepal-specific instruments to measure teachers' self-efficacy and classroom management practices.

In this study, the researcher developed instruments through the e-Delphi technique to measure teachers' self-efficacy and classroom management practices. The study was conducted with the aim of exploring the relationship between teachers' self-efficacy and CMPs in public secondary level schools in Nepal. The study raised three major questions: a) what factors contribute to teachers' self-efficacy and classroom management practices in Nepali public secondary schools b) what is the level of teachers' self-efficacy and CMPs in Nepali public schools, c) Is there a correlation/relationship between teachers' self-efficacy and classroom management practices? To answer these questions, I did a detailed review of the literature. During the review, the researcher primarily reviewed the literature to know the existing knowledge of teachers' self-efficacy and classroom management practices and the research gap at the national and international levels. Based on those reviews, the researcher decided to apply the quantitative research method with a post-positivist ontological stance.

This main concept of the study was conceptualized with the help of Albert Bandura's Social Cognitive Theory (SCT). Bandura's theory served as the primary source of motivation of the study. It is a method of explaining an activity, human cognition process, intention, and feeling that is predicated on the idea that humans are capable of self-reflection and self-regulation and that they actively alter their environments instead of being merely passive reactors to them. Social cognitive theory is one approach that seeks to understand human action, cognition, drive, and feeling. The research was carried out amongst secondary level teachers from public schools in the Kathmandu valley. The schools were selected through multi-stage cluster sampling. The study covered the three districts of the Kathmandu valley – Kathmandu, Lalitpur, and Bhaktapur, so the study sample was divided based on the

total number of teachers distributed into three districts. The researcher collected data from 390 secondary-level public school teachers in the Kathmandu valley. The study used structured questionnaires, developed applying an e-Delphi technique, to measure the contributing factors, the level, and the relationship between teachers' self-efficacy and classroom management practices. The instruments were pilot-tested, and their reliability and validity were ensured before going to the field for data collection. The Cronbach's Alpha value of final data is found .82 in total, indicating very good internal consistency of data.

To identify the contributing factors, the researcher used explorative factor analysis (EFA). The EFA helped extract four factors contributing to teachers' self-efficacy. Those are a) efficacy on students' engagement, b) efficacy in instructional preparation, c) efficacy in behavioral competence and d) efficacy of teaching skills. Similarly, the EFA helped identify three factors contributing to classroom management practice. These three elements are a) management of teaching and learning processes, b) management of students in class, and c) management of group dynamics. The researcher also used confirmatory factor analysis (CFA) to validate the factors extracted by EFA. The model fit indices supported the extracted factors.

Nepali public-school teachers were found to have a high level of perceived teachers' self-efficacy. The levels were divided by three mean values: 1-2.33- LOW, 2.33-3.66- Medium, and 3.66- 5- High. Each factor under TSE had a high level, with 4.26 for students' engagement, 4.34 for instructional preparation, 4.27 for behavioral competency, and 3.93 for teaching skills. A small percentage of individual teachers were found to have low to medium levels of self-efficacy. Likewise, Nepali teachers' perceived classroom management level was also high. The descriptive statistics showed that the mean value of management of teaching and learning processes is

4.13, the mean value of management of students in class is 4.29, and the mean value of management of group dynamics is 4.11, which all are above the 3.66 cutoff value, keeping them in a high level of CMPs. Although the level of teachers' self-efficacy and CMPs is high among Nepali public school teachers, the wondering about the quality of Nepali public school education is a valid one. Therefore, it can be assumed that there are additional factors beyond teachers' self-efficacy and classroom management practices that play a role in the overall improvement of the public education system. Other factors could be physical infrastructure, classroom temperature, distance from school to home, and political interference.

Finally, the researcher used correlation analysis to see the relationship between TSE and CMPs. The study found that there was a positive and strong correlation between these two constructs. This means if there is a change in teachers' self-efficacy by 1 point, it can change classroom management practice by .64 points. The regression analysis conformed the effect of teachers' self-efficacy in classroom management. In summary, teachers' self-efficacy positively contributes to improving teachers' CMPs, resulting in improved students' academic achievement and learning.

Conclusion of the Study

There are four factors that contribute to teachers' self-efficacy. Those factors are a) efficacy in students' engagement, b) efficacy in instructional preparation, c) efficacy in behavioral competence and d) efficacy in teaching skills. Teachers' relationship with students, how they view their school leaders, how confident they feel about their teaching skills, and how competent they think they are in exerting their influence on students contribute to the development of teachers' self-efficacy. The researcher also draws a conclusion that cultural dimensions play a role in developing teachers' self-efficacy. Teachers' cultural values, beliefs and perceptions

outside and inside their classroom have an impact on how effective a teacher is in managing a class. In that regard, three factors contribute to classroom management practices. Those factors are a) management of teaching and learning process, b) management of students, and c) management of group dynamics. Classroom management entails teachers' set of skills to keep students engaged, to use scarcely available teaching materials, and facilitate cultivating a sense of community among students and between students and teachers. Nepal's cultural and ethnic diversity requires public school teachers to be more agile to adapt new approaches of classroom management. Given the cultural tradition of collectivism and hierarchy, teachers' engagement in classroom empowers students to become active contributors in teaching learning practices.

The level of teachers' self-efficacy among Nepali public school teachers is high. The researcher believes that providing a good work environment, support from school principals, school management committees, and regular professional development opportunities support the increase in teachers' self-efficacy for Nepali public school teachers. Likewise, the level of classroom management practices among Nepali public school teachers is high. The school climate, effective student size and seating arrangement, availability of teaching equipment and resources, and understanding of students' characteristics, socio-cultural dimensions, and needs are the foundation for effective classroom management. However, in order to reach the end goal of quality education, the improved level of classroom management practices and teachers' self-efficacy alone is not sufficient. Some other factors such as the location of school, classroom temperature, physical infrastructures, classroom size, distance from school to home and political interference also play a crucial role in the Nepali public school system.

There is a significant and positive relationship between teachers' self-efficacy and CMPs. Teachers' belief in engaging students, proactively planning the lessons, their behavioral strength, and teaching skills support effective classroom management which entails student-centric, teaching-learning activities, teachers as facilitators and counsellors, and students as participants in the process of knowledge creation. A highly efficacious teacher manages a classroom effectively, resulting in improved student learning and achievement.

Teachers' self-efficacy and classroom management practices are interdependent in the context of school education. This interdependency between these two constructs in the context of Nepali public secondary education supports establishing an association among the variables. Efficacy in student engagement, instruction preparation, behavioral competency, and teaching skills is associated with student management, teaching, and learning processes, and management of group dynamics. This relationship proves to be of paramount importance to improving a student's academic learning and achievement. Consequently, it supports the development of quality public school education. It pushes the narrative of transformative education since teachers with a higher sense of self-efficacy tend to follow critical pedagogy with students as participants in creating knowledge.

Implications of the Study

This study concluded that teachers' self-efficacy and classroom management practices are some of the factors that could contribute to the improvement of the overall quality of public education in Nepal. Knowing that teachers' self-efficacy and classroom management practices are not the sole influencing constructs to improve the public education system, the researcher thinks it is important to use the worm's-eye view to dive deep into other factors that are hindering the overall quality of the

public education system in Nepal. This study recommends that the administrators, principals, policy planners, local stakeholders, and teachers' training centers should pay particular attention to strategies that promote teachers' self-efficacy in terms of efficacy on instructional preparation, student engagement, teaching skills, and behavioral competence. The conclusion this study has drawn could be pivotal in designing training programs and managing teachers' performances in Nepali public schools. The tools this study developed could be used to measure the factors, level, and relationship between teachers' self-efficacy and the classroom management practices of public school teachers in Nepal. In this chapter, the researcher outlines some implications of this study at the policy and practitioners' levels.

Implication for Policymakers

This study is the first of its kind that identified factors and examined level and relationship between teachers' self-efficacy and classroom management practices in Nepal. Teachers' self-efficacy has significant implications in teaching planning and development, as it largely impacts the establishment of goals and objectives set by teachers and classroom activities and assessment methods they apply. Teachers' self-efficacy also impacts the efforts that teachers put in to achieve them. Implications for policymakers can be separated based on the three tiers of government.

Since local level government is responsible for teacher management at the secondary level, they would benefit from the utilization of the tools developed in this study. The tools for this study were developed through the e-Delphi techniques with a high level of reliability. Collecting statistics from the school level is also the local government's responsibility. As part of their broader questionnaire, they could measure the level of teachers' self-efficacy and classroom management practices on a regular basis and address those with corrective action plans, as needed. Once these are

addressed, the local government can find other possible barriers of quality public education in Nepal. Those barriers include good school infrastructure, classroom temperature, and distance from home to school. The local government could develop a holistic plan to improve the overall quality of public school education in their local government.

Since the provincial government is responsible for setting a standard and regulation of public school teachers, they would benefit by examining teachers' self-efficacy of pre-service teachers. They can suggest appropriate training modules and exposure visits to strengthen teachers' self-efficacy and classroom management practices of provincial level teachers. Teachers' strong sense of group efficacy can bring about positive school results in each province.

These instruments can be resources for the Ministry of Education and other Nepali educational entities and policymakers to measure the level and apply an appropriate strategy for intervention to improve teachers' self-efficacy and their CMPs. The federal government can develop policies to cultivate TSE in teachers, who will then improve classroom management practices contributing to the improvement of students' achievement and learning. Highly efficacious teachers with better classroom management plans can help yield positive results for a school, students, community, and the nation.

Implications for School Administrators/School Management Committee

The study found that there was a positive relationship between teachers' self-efficacy and their CMPs. As these two constructs play a significant role in bettering a school's teaching-learning ecology and, therefore, student's academic achievement, it is encouraged that school stakeholders find professional development opportunities for teachers to improve their self-efficacy and classroom management practices. If

there is an improvement in teachers' self-efficacy, it is reasonable to state that classroom management practices are likely to increase, which is a win-win proposition for Nepali public schools.

Teachers' physical and emotional states can largely impact teachers' efficacy. Therefore, the school administrators and other stakeholders could ensure that the work environment for teachers is productive and supportive. Likewise, teachers tend to develop efficacy when they observe their model performing well. So, peer teaching observation could be used in Nepali public schools. The principal and other leadership of the schools could ensure reward mechanisms to inspire self-efficacy in teachers. The higher the self-efficacy, the better a teacher can manage a classroom, resulting in improved student achievement and learning.

Implications for the Future Researchers

There were no comprehensive studies to measure the relationship between teachers' self-efficacy and classroom management practices in Nepal. This study serves as a good frame of reference for future researchers. Future researchers could address some of the following issues.

First, this study identified the four components of teachers' self-efficacy and three components of classroom management practices from EFA and CFA. Future researchers can further refine these factors by considering teachers' socioeconomic and demographic status.

Secondly, the quantitative analysis showed that the public school teachers' self-efficacy and classroom management appeared high. Despite Nepali public teachers' levels being high, the quality of public education remained poor. Therefore, it is encouraged that future researchers do mixed methods research to gain more insight into this dimension, which could allow the future researcher to observe the

classroom management practices of teachers with high self-efficacy and compare it with teachers with low self-efficacy at the school level. In order to validate the level obtained through the survey, future researchers can carry out classroom observation and draw conclusions accordingly. In mixed methods research, future researchers could dive deep into the structural factors as outlined in the findings and conclusion.

Finally, the study selected only secondary-level public teachers. The future researcher can study self-efficacy and classroom management practices of all grade levels and school types. Future researchers can also concentrate on finding the effects of demographic variables such as gender, age, education, and experience on the level of teachers' self-efficacy and classroom management practices.

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Annex 1: Final Tool (Nepali) for Data Collection

काठमाण्डौ विश्वविद्यालय स्कुल अफ एजुकेशन पि.एच.डी अध्ययनका लागि प्रश्नावली

नेपालका माध्यामिक विद्यालयका शिक्षकहरु लागि सर्वेक्षण प्रश्नावली

सहमति फारम

मेरो नाम धुर्व शाह हो । म काठमाण्डौ विश्वविद्यालयको विद्यावारिधिको एउटा शोधार्थी हुँ । मेरो अध्ययनको एउटा पाटोको रूपमा **Teachers Self-Efficacy and Classroom Management Practices: A Survey of Secondary Level Public School Teachers of Nepal** विषयमा शोध अनुसन्धान गर्दै छु । नेपालका माध्यामिक तहका विद्यालयहरुमा शिक्षकहरुको आत्मप्रभावकारिता र कक्षाकोठा व्यवस्थापनका तरिकाको बारेमा खोज गर्नु नै यस अनुसन्धानको उद्देश्य रहेको छ । यसको लागि काठमाण्डौ उपत्यकाबाट डाटा संकलन गर्दैछु । तपाईंहरुको इमान्दारीपूर्वक दिनुभएको उत्तरले यस अनुसन्धानमा विशेष महत्व राख्छ । साथै उक्त उत्तरहरुलाई गोप्य राखिने छ । यस फारमका तपाईं चाहनुहुन्छ भने आनो नाम नलेख्न पनि सक्नुहुन्छ र म तपाईंलाई विश्वस्त गराउछु कि यसबाट प्राप्त जानकारीहरु मेरो अध्ययनमा बाहेक अरु प्रयोजनको लागि प्रयोग गरिने छैन । तपाईंहरुले दिनुभएको जवाफ सहि वा गलत छुट्याइने छैन । यदि तपाईंहरुलाई यस अनुसन्धानको बारेमा कुनै पनि जिज्ञासा भएमा बिना हिचकिचाहट मेरो मोबाइल नम्बर ९८०१०२७९६७ मा जुनसुकै समयका सम्पर्क गर्न सक्नुहुनेछ ।

यस सर्वेक्षणमा तपाईंहरुको समय र सहयोगको लागि म आभारी रहनेछु । यस सर्वेक्षणले तपाईंहरुको करिब २० मिनेट समय लाग्ने छ ।

खण्ड क व्यक्तिगत विवरण

क्र.स.	प्रश्न	उत्तर
१	तपाईंको नाम (ऐच्छिक)	
२	तपाईंको विद्यालयको नाम (ऐच्छिक)	
३	तपाईंको विद्यालयको ठेगाना	
४	तपाईंको लिंग	१. पुरुष २ महिला ३ अन्य
५	तपाईंको जात	१ ब्राह्मण २ क्षेत्री ३ जनजाति ४ दलित ५ मधेशी ६ मुस्लिम ७ अन्य
६	तपाईंको उमेर	१ स्नातक २ स्नाकोत्तर ३ एम.फिल ४ पि.एच.डी
७	तपाईंको शिक्षा	
८	तपाईंको शिक्षण अनुभव वर्ष

९	तपाईंको शिक्षक श्रेणी	१ प्रथम २ द्वितीय ३ तृतीय
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खण्ड ख नेपालका माध्यमिक तहका विद्यालय शिक्षकहरूको आत्म-प्रभावकारिता मापन

कृपया प्रत्येक विवरणलाई १-६ अङ्कमा संकेत गर्नु हो । (१-ऋति असहमत (SD) , २-असहमत (D), ३- सहमत पनि होइत असहमत पनि छैन(तट्स्त) (N), ४-सहमत (SA), ५-अति सहमत (SA),

क्र.स	विवरण	SD	D	N	A	SA
१०	मेरो अनुभवको आधारमा, मैले पढाउने विषयमा म विश्वस्त छु ।	१	२	३	४	५
११	कक्षामा जानु पहिले म आफुले पढाउने विषयको राम्रो तयारी गर्छु ।	१	२	३	४	५
१२	कठिन पाठ्यवस्तुलाई सजिलै बुझाउन सक्नेमा विश्वस्त छु ।	१	२	३	४	५
१३	पाठको उद्देश्य हासिल गर्नका लागि आवश्यक काक्षाकार्य सम्बन्धी योजना बनाउन म सक्षम छु ।	१	२	३	४	५
१४	पठनपाठनमा अवरोध पुऱ्याउने विद्यार्थीलाई ध्यानमा राखेर कक्षाकोठा व्यवस्थापन गर्न म सक्षम छु ।	१	२	३	४	५
१५	म आफुले पढाउने पाठ्यवस्तु समयमा नै पुरा गर्न सक्षम छु ।	१	२	३	४	५
१६	आफुले पढाउने पाठ्यवस्तु विद्यार्थीको वास्तविक जीवनसँग जोडेर पढाउन म सक्षम छु ।	१	२	३	४	५
१७	विद्यार्थीलाई पढाउन आवश्यक पर्ने शैक्षिक सामग्रीको म अग्रिम तयारी गर्छु ।	१	२	३	४	५
१८	विद्यार्थीहरूको सहभागिता बढाउनको लागि आवश्यक कक्षाकार्यको योजना बनाउन म सक्षम छु ।	१	२	३	४	५
१९	यदि कुनै समस्या आइपरेमा म प्रधानाध्यपकको सहयोग लिन्छु ।	१	२	३	४	५
२०	कक्षामा भद्र देखिने पोशाक लगाएर म पठनपाठन गर्छु ।	१	२	३	४	५
२१	विद्यार्थीलाई सहज महशुस गराउन म उनीहरूको नाम लिएर बोलाउछु ।	१	२	३	४	५
२२	कक्षाकोठाको क्रियाकलाप गर्ने क्रममा म विद्यार्थीहरूलाई सम्मान गर्छु ।	१	२	३	४	५
२३	विद्यार्थीहरूको सिकाइको लागि कक्षाकोठामा प्रयोग हुनसक्ने नियम बनाउन म सहपाठी शिक्षकहरूसँग छलफल गर्छु ।	१	२	३	४	५
२४	शिक्षकको क्रममा म आफ्नो पेशागत तथा व्यक्तिगत दायित्वलाई छुट्याउन सक्षम छु ।	१	२	३	४	५
२५	कक्षाकोठामा आइपर्ने समस्याहरूलाई म आफै समाधान गर्न सक्छु भन्नेमा विश्वस्त छु ।	१	२	३	४	५
२६	कक्षाकोठामा गर्न पर्ने आचरण बारेमा मेरो विद्यार्थीहरू सजग छन् ।	१	२	३	४	५
२७	म विद्यार्थीहरूको सिकाइलाई ध्यानमा राखेर आफ्नो पठनपाठन गर्ने गर्छु ।	१	२	३	४	५
२८	म पठनपाठनको लागि कम्प्युटर तथा प्रोजेक्टरको प्रयोग गर्छु ।	१	२	३	४	५
२९	म आफ्नो शिक्षण प्रक्रियालाई सुधार्न विद्यार्थीहरूको सक्रिय सहभागितालाई प्रोत्साहन गर्छु ।	१	२	३	४	५
३०	मेरो शिक्षण विधिबाट प्रधानाध्यापक खुसि हुनुहुन्छ ।	१	२	३	४	५
३१	मेरो शिक्षण विधिबाट विद्यार्थीहरू खुसि हुनुहुन्छ ।	१	२	३	४	५

३२	मेरो शिक्षण विधिबाट विद्यालय व्यवस्थापन समिति तथा अरु सम्बन्धित निकायहरु खुसि हुनुहुन्छ ।	१	२	३	४	५
३३	मेरो शिक्षण विधिबाट अभिभावकहरु खुसि हुनुहुन्छ ।	१	२	३	४	५
३४	विद्यार्थीको ध्यान केन्द्रित हुने गरि म पठनपाठन गराउन सक्षम छु ।	१	२	३	४	५
३५	विद्यार्थीको शिकाई प्रक्रिया विश्लेषण गरेर म पढाउन सक्षम छु ।	१	२	३	४	५
३६	विद्यार्थीको व्यवहारमा सकारात्मक प्रभाव पर्ने गरि म नियमित परामर्श दिने गर्छु ।	१	२	३	४	५
३७	विद्यार्थीहरुलाई उनीहरुको शिकाई उपलब्धि बढाउने उद्देश्यले म नियमित परामर्श दिने गर्छु ।	१	२	३	४	५
३८	आफ्नो भाषिक दक्षता प्रयोग गरेर म पठनपाठन गराउन सक्षम छु ।	१	२	३	४	५

खण्ड ग; नेपालका माध्यमिक तहका विद्यालय शिक्षकहरुको कक्षाकोठा व्यवस्थापन अभ्यास

कृपया प्रत्येक विवरणलाई १-६ अङ्कमा संकेत गर्नु हो । (१-ऋति असहमत (SD), २-असहमत (D),

३- सहमत पनि होइत असहमत पनि छैन(तटस्त) (N), ४-सहमत (SA), ५-अति सहमत (SA),

क्र.स.	विवरण	SD	D	N	A	SA
३९	कक्षाभित्रको गतिविधिहरुमा सहयोग गर्न विद्यार्थीहरुमध्येबाट म कक्षा प्रतिनिधि वा मनिटर नियुक्त गर्छु ।	१	२	३	४	५
४०	म कक्षाकोठामा विद्यार्थीहरुलाई समूहहरुमा विभाजन गर्छु ।	१	२	३	४	५
४१	विद्यार्थीको सकारात्मक व्यवहारलाई म पुरस्कृत गर्ने गर्छु ।	१	२	३	४	५
४२	कक्षाकोठामा पस्ने वित्तिकै विद्यार्थीहरुलाई म अभिवादन गर्ने ।	१	२	३	४	५
४३	कक्षाकोठामा पस्ने वित्तिकै विद्यार्थीहरुले मलाई उठेर अभिवादन गर्ने गर्छन ।	१	२	३	४	५
४४	हरेक सिकाई गतिविधिहरुको समय सिमा म तोक्ने गर्छु ।	१	२	३	४	५
४५	कक्षाकोठामा विद्यार्थीहरुलाई म सभ्य रहन प्रोत्साहन गर्छु ।	१	२	३	४	५
४६	यदि कुनै विद्यार्थीले कक्षाको वातावरणमा खलल पुऱ्याउने व्यवहार नरोकेमा म प्रधानाध्यापकलाई खबर गर्छु ।	१	२	३	४	५
४७	विद्यार्थीहरुले कक्षाकोठामा अनुशासन पालन गरे नगरेको म सुनिश्चित गर्छु ।	१	२	३	४	५
४८	म विद्यार्थीहरुलाई प्रश्न सोध्न प्रोत्साहन गर्छु ।	१	२	३	४	५
४९	म पहिले आफ्नो पाठ पढाउछु र त्यसपछि विद्यार्थीहरुलाई प्रश्न सोध्न भन्छु ।	१	२	३	४	५
५०	म विद्यार्थीहरुलाई सँधै गृहकार्य दिन्छु ।	१	२	३	४	५
५१	विद्यार्थीहरुले एकआपसमा सभ्य व्यवहार गरुन भनेर म आफु पनि अनुशासित भएर पठनपाठन गर्छु ।	१	२	३	४	५
५२	कक्षाको सुरुवात गर्दा त्यो दिनको कक्षामा गर्ने गतिविधिहरुलाई म प्रस्तुत गर्छु ।	१	२	३	४	५
५३	मेरो कक्षाका प्रत्येक विद्यार्थीहरुको नाम म सम्झिन्छु ।	१	२	३	४	५
५४	कमजोर विद्यार्थीहरुका लागि म विशेष तरिकाले पढाउने गर्छु ।	१	२	३	४	५
५५	कक्षाकोठाको गतिविधिहरुलाई ध्यानमा राखेर म विद्यार्थीहरुको आन्तरिक मुल्याङ्कन गर्छु ।	१	२	३	४	५
५६	विद्यार्थीहरुको शैक्षिक गतिविधिहरुको म नियमित अवलोकन गर्छु ।	१	२	३	४	५
५७	शिक्षण गर्दा म आफ्नो body language प्रयोग गर्छु ।	१	२	३	४	५
५८	विद्यार्थीहरुको सिकाइलाई ध्यानमा राखेर म विभिन्न शैक्षिक सामग्रीहरुको प्रयोग गर्छु ।	१	२	३	४	५

५९	म सबै विद्यार्थीहरूलाई आफ्नो दैनिक कार्यतालिका तयार गर्न भन्छु ।	१	२	३	४	५
६०	आफ्नो विद्यार्थीहरूलाई म नैतिक शिक्षा पनि पढाउछु ।	१	२	३	४	५
६१	गलत नै जवाफ दिएतापनि म विद्यार्थीहरूलाई जवाफ दि प्रोत्साहन गर्छु ।	१	२	३	४	५
६२	विद्यार्थीहरूसँग मेरो आत्मिय सम्बन्ध भएकोले उनीहरू मसँग आफ्ना हरेक समस्याहरू छलफल गर्छन् ।	१	२	३	४	५
६३	म विद्यार्थीहरूको बसाई व्यवस्थापन मिलाउने गर्छु ।	१	२	३	४	५

यहाँहरूको महत्वपूर्ण समय र सहयोगको धेरै धन्यावाद !

Annex 2: Final Tool (English) for Data Collection

Questionnaire Survey among Secondary Level Schools Teachers of Nepal

Consent Form

My name is Dhurba Shah. I am a Ph.D. Scholar of Kathmandu University. As part of my studies, I am researching the topic "*Teachers Self-Efficacy and Classroom Management Styles: A Survey of Secondary Level Schools Teachers of Nepal*". The research aims to explore the relationship between the teacher's self-efficacy and classroom management style in secondary-level schools in Nepal. I am collecting data from Kathmandu valley. Your honest answer is very important for the research project. Anything you say will remain confidential. Your name is optional in this form, and I want to ensure that the given information will never be used for other purposes than this study. There is no right or wrong answer. If you have any queries about this research, do not hesitate to contact me any time on my cell phone no 9801027967.

I would greatly appreciate your help in responding to this survey. The survey will take not more than 30 minutes.

Section A: Demographic information of Respondent

SN	Question	Answer
1.	Name of the respondent (optional)
2.	Name of school (optional)
3.	Address of school
4.	Types of school	1. Public 2. Private
5.	Sex of respondent	1. Male 2. Female
6.	Caste of respondent	1. Chhetri 2. Brahamin 3. Janjati 4. Dalit 5. Madhesi 6. Muslim 7. Others
7.	Age of respondent Years
8.	Education of respondent	1. Bachelor level 2. Master level 3. M.Phil. 4. PhD
9.	Year of experience in the teaching sector Years
10.	Levels/Grade of the respondents	1. IIIrd class 2. IInd Class 3. Ist class

Section B: Teachers' Self-Efficacy Scale for Secondary Level Teachers in Nepal

Please rate 1-5 for each item. (1- Strongly Disagree (SD), 2- Disagree (D), 3- Neither agree nor disagree (N), 4- Agree (A), 5-Strongly Agree (SA))

SN	Statement	SD	D	N	A	SA
11.	With my experience, I feel confident about what I am teaching	1	2	3	4	5
12.	I prepare for my lessons before my class time.	1	2	3	4	5
13.	I feel confident that I can easily get through difficult topics.	1	2	3	4	5
14.	I can design classwork to achieve lesson objectives effectively.	1	2	3	4	5
15.	I can manage the difficult students ruining the class.	1	2	3	4	5
16.	I can complete my syllabus/course on time.	1	2	3	4	5
17.	I can relate my teaching topic with students' real life for better learning.	1	2	3	4	5
18.	I can prepare teaching materials in advance to teach a lesson to the students.	1	2	3	4	5
19.	I can design classwork to maximize students' participation in class.	1	2	3	4	5
20.	I can solicit support from my principal if I encounter any problems.	1	2	3	4	5
21.	I wear a presentable and confident dress in front of the class.	1	2	3	4	5
22.	I can take and remember students' names so that they feel valued.	1	2	3	4	5
23.	During classroom activities, I can show respect towards my students.	1	2	3	4	5
24.	I can brainstorm and consult with my fellow teachers to craft classroom rules for better learning.	1	2	3	4	5
25.	I can separate my professional and personal obligation while in the classroom.	1	2	3	4	5
26.	I am confident that I can address classroom problems on my own.	1	2	3	4	5
27.	My students are aware of my expectations of their conduct in the classroom.	1	2	3	4	5
28.	I can drive my classes considering the in-depth knowledge of students.	1	2	3	4	5
29.	I can use a projector and computer for my lesson.	1	2	3	4	5
30.	I can encourage the active engagement of students to maximize my teaching capabilities.	1	2	3	4	5
31.	I can make my principal happy with my teaching	1	2	3	4	5

SN	Statement	SD	D	N	A	SA
	methodologies.					
32.	I can make my students happy with my teaching methodologies.	1	2	3	4	5
33.	I can make my school management committee or relevant authority happy with how I am helping students learn.	1	2	3	4	5
34.	I can make parents happy with my teaching methodologies.	1	2	3	4	5
35.	I can deliver the lessons smoothly by holding students' attention.	1	2	3	4	5
36.	I can analyze the learning styles of each student and teach.	1	2	3	4	5
37.	I can provide regular counselling to my student, which can have a positive impact on their behaviour,	1	2	3	4	5
38.	I am confident that my teaching increases student achievement and motivation.	1	2	3	4	5
39.	I am able to use my language proficiency to run my classes.	1	2	3	4	5

Section C: Classroom Management Practices of Nepali Secondary Level Teachers

Please rate 1-5 for each item. (1- Strongly Disagree (SD), 2- Disagree (D), 3- Neither agree nor disagree (N), 4- Agree (A), 5-Strongly Agree (SA))

SN	Statement	SD	D	N	A	SA
40.	From among the students, I appoint class representatives and/ or monitors to facilitate classroom engagement.	1	2	3	4	5
41.	I divide the class into groups.	1	2	3	4	5
42.	I reward the positive behavior of the students.	1	2	3	4	5
43.	I greet students when I enter the classroom.	1	2	3	4	5
44.	Students stand up to greet me when I enter the class.	1	2	3	4	5
45.	I set a timeline for each learning activity.	1	2	3	4	5
46.	I encourage well-managed behavior in the class itself.	1	2	3	4	5
47.	If the disruptive behavior continues, I report it to the principal.	1	2	3	4	5
48.	I make sure that students comply with my classroom norms.	1	2	3	4	5

SN	Statement	SD	D	N	A	SA
49.	I encourage students to ask questions.	1	2	3	4	5
50.	I teach my lesson first and then ask students to ask questions.	1	2	3	4	5
51.	I always assign homework.	1	2	3	4	5
52.	I model discipline in my class so that students behave nicely with each other.	1	2	3	4	5
53.	I initiate class by outlining the session activities of the day.	1	2	3	4	5
54.	I make sure I remember the names of every student in my class.	1	2	3	4	5
55.	I develop a specific plan for slow learners.	1	2	3	4	5
56.	I consider classroom engagement for the internal assessment of the students.	1	2	3	4	5
57.	I regularly observe the academic activities of students during class time,	1	2	3	4	5
58.	I use body or hand movements and facial expressions during teaching,	1	2	3	4	5
59.	I use varieties of learning materials for the learning styles of students,	1	2	3	4	5
60.	I have asked all students to prepare their daily routine,	1	2	3	4	5
61.	I also teach moral education to my students,	1	2	3	4	5
62.	I always encourage students, even in their incorrect responses,	1	2	3	4	5
63.	I have an intimate relationship with students so that they can openly discuss their problems,	1	2	3	4	5
64.	I make seat arrangements for students in my class.	1	2	3	4	5

Thank you for your active participation.

Annex 3: Factor Loading of Teachers' Self-Efficacy and Classroom Management

Practices

Table 36

Exploratory Factor Analysis of Teachers' Self-Efficacy

KMO and Bartlett's Test^a										
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy.										.935
Bartlett's Test of Sphericity										5722.411
Approx. Chi-Square										378
Df										.000
Sig.										.000
a. Based on correlations										
Total Variance Explained										
	Component	Initial Eigenvalues ^a			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Rescaled	1	5.40	36.38	36.38	10.31	36.84	36.84	4.97	17.75	17.75
	2	1.77	11.94	48.33	2.93	10.47	47.32	4.22	15.0	32.84
	3	.740	4.98	53.31	1.45	5.19	52.51	3.61	12.89	45.74
	4	.69	4.64	57.95	1.17	4.18	56.69	3.07	10.96	56.69
	5	.62	4.21	62.17						
	6	.48	3.27	65.44						
	7	.46	3.15	68.59						
	8	.38	2.55	71.15						
	9	.36	2.44	73.59						
	10	.33	2.25	75.84						
	11	.32	2.19	78.03						
	12	.29	2.00	80.04						
	13	.28	1.92	81.97						
	14	.26	1.76	83.73						
	15	.24	1.64	85.37						
	16	.22	1.51	86.89						
	17	.21	1.43	88.32						
	18	.20	1.37	89.70						
	19	.19	1.30	91.00						
	20	.18	1.23	92.24						
	21	.17	1.19	93.43						
	22	.17	1.17	94.60						
	23	.15	1.02	95.63						
	24	.14	.99	96.62						
	25	.13	.93	97.56						
	26	.13	.89	98.46						
	27	.12	.83	99.29						
	28	.10	.71	100.00						

Extraction Method: Principal Component Analysis.

a. When analyzing a covariance matrix, the initial eigenvalues are the same across the raw and rescaled solution.

Table 37*Exploratory Factor Analysis Classroom Management Practices***KMO and Bartlett's Test^a**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.955
Bartlett's Test of Sphericity	Approx. Chi-Square	5279.680
	Df	253
	Sig.	.000

a. Based on correlations

Total Variance Explained

Component	Initial Eigenvalues ^a			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.214	47.913	47.913	11.087	48.206	48.206	5.086	22.113	22.113
2	.812	6.262	54.176	1.394	6.062	54.268	4.999	21.733	43.846
3	.621	4.792	58.967	1.041	4.526	58.794	3.438	14.948	58.794
4	.494	3.808	62.775						
5	.452	3.482	66.257						
6	.437	3.372	69.630						
7	.382	2.946	72.576						
8	.363	2.798	75.374						
9	.330	2.543	77.916						
10	.327	2.521	80.437						
11	.303	2.335	82.772						
Rescaled 12	.286	2.201	84.974						
13	.268	2.067	87.041						
14	.249	1.918	88.959						
15	.218	1.677	90.636						
16	.199	1.535	92.171						
17	.180	1.385	93.556						
18	.173	1.336	94.892						
19	.152	1.170	96.062						
20	.140	1.079	97.142						
21	.136	1.045	98.187						
22	.122	.941	99.128						
23	.113	.872	100.000						

Extraction Method: Principal Component Analysis.

a. When analyzing a covariance matrix, the initial eigenvalues are the same across the raw and rescaled solution.

Annex 4: Q-Q Plot of Dimensions of TSE and CMPs.

Figure 1: Normal Q-Q Plot of Efficacy on Students Engagement (ESE)

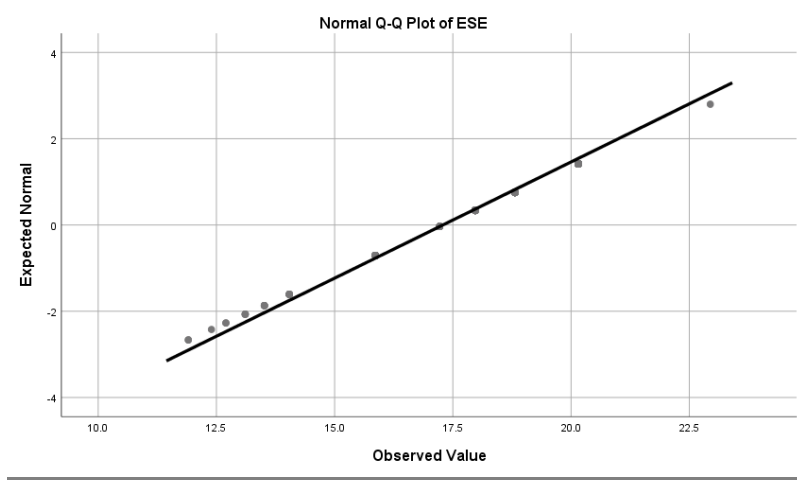


Figure 2: Normal Q-Q Plot of Efficacy on Instructional Planning (EIP)

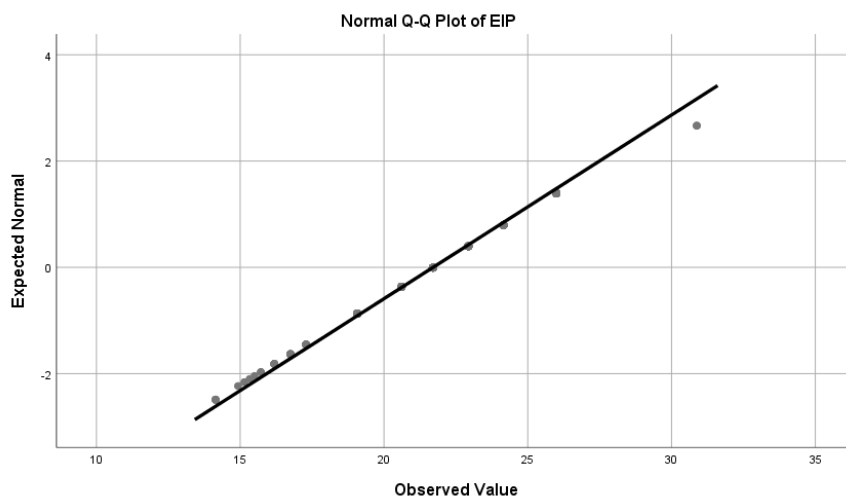


Figure 3: Normal Q-Q Plot of Efficacy on Behavioral Competence (EBC)

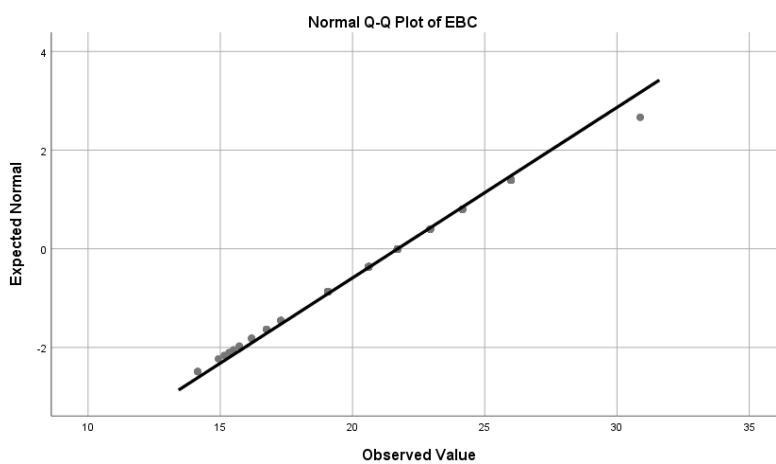


Figure 4: Normal Q-Q Plot of Efficacy on Teaching Skills (ETS)

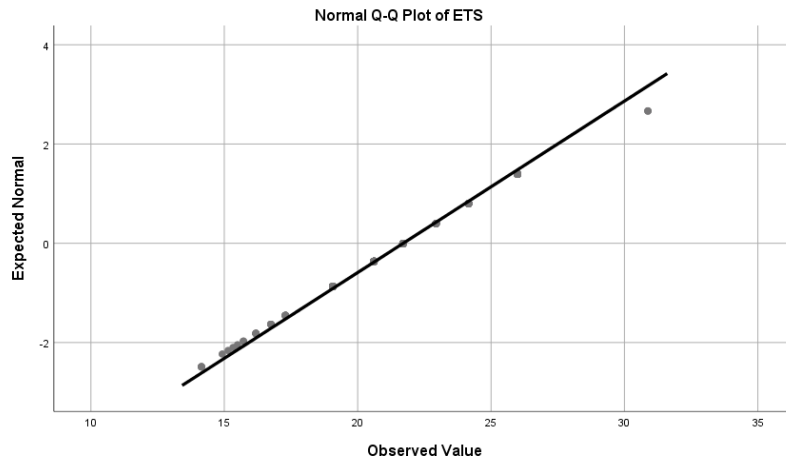


Figure 5: Normal Q-Q Plot of Management of Teaching Learning Process (MTLP)

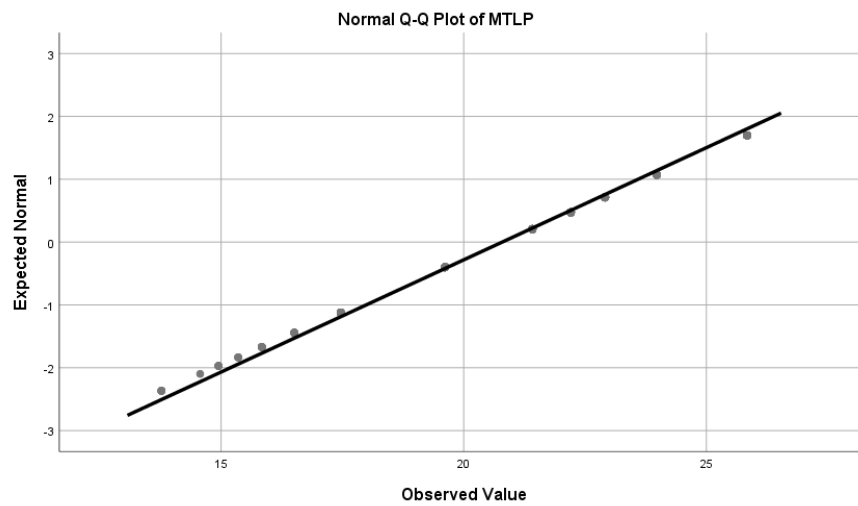


Figure 6: Normal Q-Q Plot of Management of Students in Class (MSC)

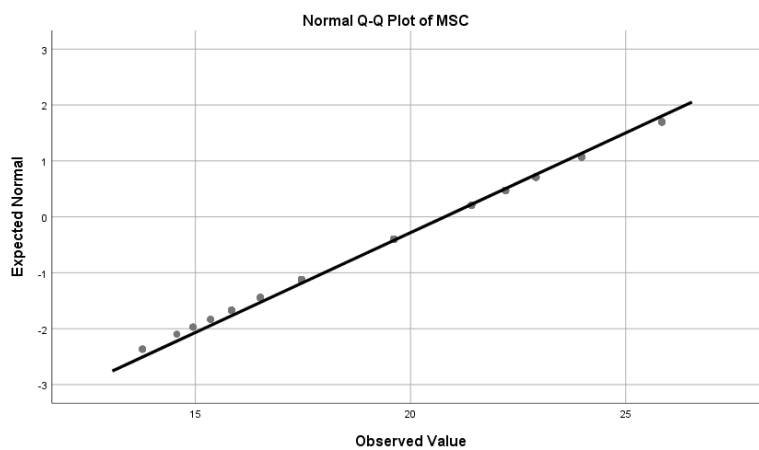
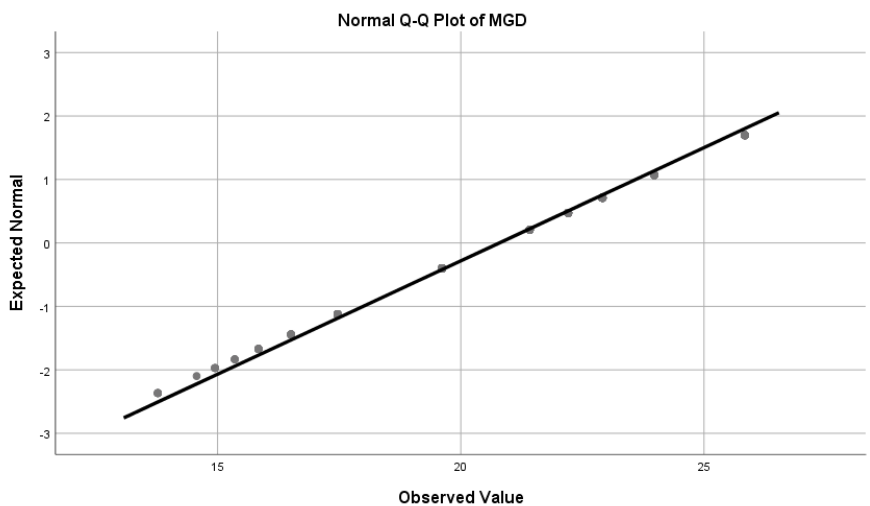
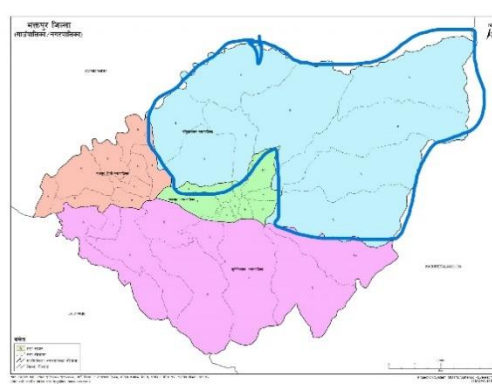
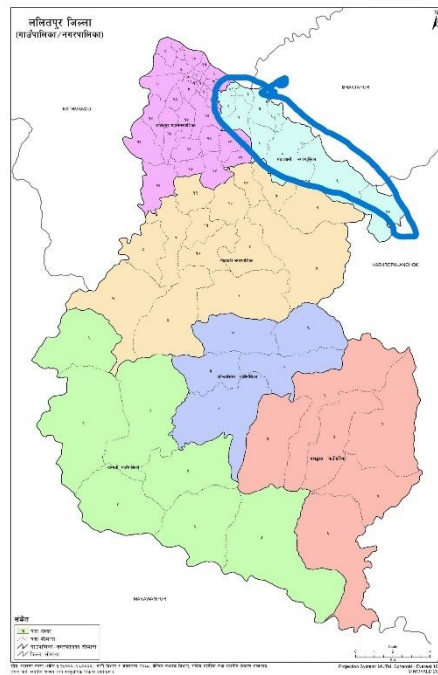
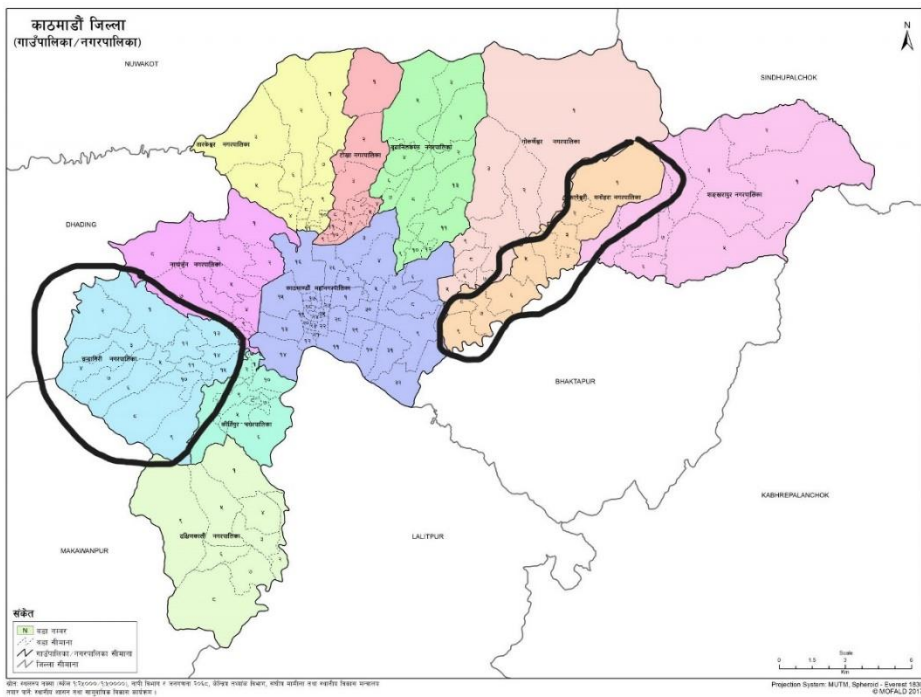


Figure 7: Normal Q-Q Plot of Management of Group Dynamics (MGD)



Annex 5: Map of the Sample Local Government Bodies

This study collected data from Kageshwori Manohara and Chandragiri Municipality in Kathmandu; Mahalaxmi Municipality in Lalitpur; and Changu Narayan Municipality in Bhaktapur



Annex 6: Letter for Data Collection

Kathmandu University
School of Education



9 March 2022

To Whom It May Concern

Mr. Dhurba Bahadur Shah has been studying PhD in Development Studies at the School of Education of this University since February 2021. For the completion of his PhD thesis, he is conducting a research on "*Teachers Self-Efficacy and Classroom Management Practices: A Survey of Secondary Level Public School Teachers of Nepal.*"

In course of his research, he is currently visiting different places where he needs to consult libraries, research centers, educational consultancies and related government organizations & schools. He is collecting data for his research from educationists, policy makers, development activist, school management committee, teachers, parents, students and educational administrators.

Therefore, I would like to request the concerned organizations and personalities to co-operate him on his research activities.

A handwritten signature in black ink, appearing to read 'Bal Chandra Luitel'.

Prof. Bal Chandra Luitel, PhD

Dean

Annex 7: Names of the Enumerators

Four key enumerators led by Rabin Malbul collected the data. Two logistical assistants helped with logistics, printing, and calling schools and getting the appointments.

1. Rabin Malbul, Lalitpur, Supervisory Enumerator
2. Ceraj Pokharel, Thankot, Enumerator
3. Manju Adhikari, Bhaktapur, Enumerator
4. Badri Mainali, Gokarna, Enumerator
5. Hema Puri, Kathmandu, Logistics
6. Siwani Pokharel, Dhapakhel, Logistics and Enumerator Assistant