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Factors Contributing to Teachers' Self-Efficacy: A Case of Nepal

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Abstract: A key issue for teachers working in public secondary schools in Nepal is their confidence in their capability to complete the tasks associated with their professional activities. With this consideration, a study was carried out to explore the factors contributing to Nepali teachers' self-efficacy. To find out the factors, the study administered the NTSE tool, developed through the e-Delphi technique. A sample of 390 public school teachers was drawn from a population of 3427 teachers in the Kathmandu, Lalitpur, and Bhaktapur districts of Nepal. A cluster sampling technique was used to draw a local government body in each district. The exploratory factor analysis (EFA) was applied using a principal component matrix with varimax rotation. The EFA extraction was further validated by confirmatory factor analysis (CFA). The study found four factors, viz., efficacy in student engagement and efficacy in instructional preparation, which contribute to teachers' self-efficacy in Nepali public schools. The study helps streamline teachers' self-efficacy as a key psychological construct in their professional development opportunities, directly impacting students' academic learning and achievement.

Keywords: teachers' self-efficacy; Nepali teacher's self-efficacy scale; Nepali teachers

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1. Introduction

Teachers are crucial actors in the process of enhancing the quality of education available to students. To be qualified as a teacher, an individual must have received pedagogical training in order to be able to assist students in acquiring necessary information, attitudes, and abilities [1]. According to Njoku et al. [2], a teacher is a person who imparts knowledge, information, skills, values, and attitudes to a person or group of people who are assumed to be relatively inexperienced or unskilled in a manner that is both morally acceptable and pedagogically efficient. Teacher education includes all the policies and procedures designed to enable them to imbibe the knowledge, attitude, behavior, and skills that will enable them to perform their task effectively in classrooms, schools, and wider society. According to Offorma [3], receiving a teacher's education equips individuals to become functioning members of society and educate younger members who have less life experience. In the classroom, the teacher is the essential factor in determining the overall success of each student [4].

In the case of Nepal, the government has a high budget allocated (NPR 16 billion from the FY 2022/23) for the education sector. 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 achieved as satisfactorily as it should have been [5]. The government sector has to compete with the private sector to provide education. Grades 9 through 12 are regarded as secondary education in Nepal. Despite more people in Nepal accessing secondary education, learning outcomes remained dismal. Multiple issues with managing teachers and their professional development were recognized by the Nepal School Sector Development Program (SSDP) [6]. 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 [6]. Although the intention to allow 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 being questioned.

Teachers' management and professional development have not advanced particularly well under the SSDP. The 10-year-long Nepal Education Sector Program (ESP) will now carry the torch [7]. To close the gap extrapolated by the SSDP, this study investigates factors that contribute to TSE, as perceived by teachers themselves. A school is only as good as its teachers. One of the contributing reasons for the underachievement of public schools in Nepal is the quality of the teaching staff. Teachers with higher self-efficacy tend to translate the learning from their professional training to classroom management practices. According to MOE [6], 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 in Nepali public school teachers. A study conducted about the performance of Nepali community school found that 66% of community school students have an unsatisfactory level of learning compared to students from a private school [8]. This shows the extent to which Nepali community schools are underperforming. Likewise, the National Assessment on Students Achievement report 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 [9].

In terms of the 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 [10]. However, persistent problems with measuring the efficacy belief remained an issue for years [11]. Bandura [12] 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 [13]. In this context, it is critical to understand what the factors are that contribute to teachers' self-efficacy, affecting their approach to instruction and classroom management.

The term "self-efficacy" was coined by Albert Bandura, who is credited with being the pioneer of its introduction [12]. All anticipated outcomes and efficiency impact each person's behavior [12,14]. In a particular situation or place, the expectations of a result based on human moral judgments may produce effects [14]. He further stated that 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 self-efficacy by encouraging well-being and humility.

Teachers' self-efficacy is defined as their belief in their capability to handle tasks related to their professional work successfully. Teachers' self-efficacy impacts important academic outcomes such as students' well-being, achievement, and motivation [15]. Academic outcomes, such as student motivation and workplace satisfaction, are greatly influenced by teachers' confidence in their capacity to manage academic demands successfully, barriers, and obligations compared to professional employment [15]. Teachers' goals and objectives can be as strong as their belief in their capability to teach students effectively. According to Bandura's Social Cognitive Theory from 1986, a person's goals are driven by various abilities. These skills include symbolizing, planning, thinking forward, taking on another person's perspective, and being introspective. These talents influence people's perceptions of their capacity to execute a given activity through the environment, actions, and personal factors [14].

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 [16]. Teachers' 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 [17].

Teaching experience, context of the teaching, understanding of educational policies related to inclusive education, pre-service teachers education, and experiential learning opportunities for teachers impact teachers' self-efficacy [18]. A high self-rating of emotional stability, as well as self-efficacy, is associated with a more positive evaluation of the teacher–student relationship, as well as classroom management skills [19].

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 [20]. Supporting pre-service teachers is crucial to ensuring that they have solid and productive beliefs to develop effective, efficient, and motivated instructors [21]. 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 formative years of their careers [22].

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. Important academic outcomes are significantly influenced by TSE or teachers' views within their capacity to successfully manage the responsibilities, obligations, and obstacles associated with their professional activity [15]. Self-efficacy is teachers' important psychological attribute used to accomplish specific academic tasks for students. 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 [23]. Numerous studies have indicated that teachers 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 students [24].

Although the previous literature seems to indicate that TSE plays a role in classroom management, resulting in higher academic performance and achievement for students, there has been no research to into what factors contribute to TSE in the context of Nepali public schools. Therefore, this research explored factors that contribute to Nepali secondary level teachers' self-efficacy.

2. Method: Participants, Sampling Procedures, and Construction of Instrument

This study included 390 public school teachers from across the Kathmandu Valley. To participate, the participants had to be current teachers at secondary school level in public schools. The sample size was calculated using Yamane's formula from the population of 3427 teachers. The cluster sampling technique was applied to select the local government bodies, and the secondary-level teachers from the schools located within these local government bodies were considered the research participants. According to Thomas [25], cluster sampling is used when finding a list of items comprising the total population is impractical. For this study, it was challenging to identify teachers' names and locations. For the one-stage cluster sample, the local government bodies from three districts were categorized as clusters. Given the number of teachers in Lalitpur and Kathmandu metropolitan cities, they were divided into two and five different clusters, respectively. The local government bodies were randomly selected using a formula in a Microsoft Excel spreadsheet. Based on the random selection, Kageshwori and Chandragiri municipalities from Kathmandu, Mahalaxmi Nagarpalika from Lalitpur, and Changu Narayan Municipality from Bhaktapur were chosen. Since Kathmandu's first municipality did not have a sufficient sample size, the next round of random selection was applied to choose another local government body. The formula used for random selection was = Index (range, Randbetween (lower and upper number, range).

The instrument to measure teachers' self-efficacy was developed using the e-Delphi technique. The instrument was named Nepali Teachers' Self-Efficacy (NTSE). The e-Delphi

is a method for organizing the communication processes of a group to deal with an issue. The e-Delphi technique permitted the participants (experts) to engage and communicate with me at their own pace and time until a consensus was reached. Bardhan et al. [26], 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 involved three rounds of questionnaire development. Round 1 explored contents and issues through qualitative interviews, round 2 looked for consensus on the draft questionnaire, and round 3 further sought consensus on the draft questionnaire. The consensus benchmark was set at 75% or higher, as Diamond et al. [27] suggested.

For this study, experts were selected at two levels; (1) five experts to participate in the qualitative discussion to unpack the issues related TSE, (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 Kathmandu Valley. 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 consent. The participants had the impact of their participation in the study explained in detail. 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 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 about TSE.

Validity and Reliability of the Instrument

The reliability of the data contributes to the credibility of the conclusions and the generalizability of the findings. As a result, this study conducted a reliability test using the alpha coefficient of consistency. Since it is (a) a widely used technique to check reliability, and (b) simple to use, since it only requires a single test administration, it's better to use Cronbach's alpha coefficient among many statistical tools to measure reliability and internal consistency of data. The Cronbach's alpha value (α) of the instrument is 0.82, 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 that it proclaims to measure. 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 [28].

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 evaluated [1]. 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.

3. Results

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. The EFA is a statistical process for reducing many observed variables to a smaller number of "factors/components" that employ the commonality of the variables. The study measured the 28 variables to analyze the NTSE extracted via principal component analysis (PCA) using the SPSS software. The KMO and Bartlett's test of sphericity were used to measure the appropriateness of the data. With a KMO value at 0.93, and Bartlett's test for sphericity significant at the 0.05 level, the data were found appropriate for the study. The study extracted four key factors for NTSE. These identified factors explained a total of 56.69 % of the variance.

3.1. Rotated Component Matrix of Teacher's Self-Efficacy

The EFA calculated, as shown in Table 1, 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 of 0.53 to a maximum of 0.71. Similarly, the value of efficacy on instructional preparation is a minimum of 0.60 to a maximum of 0.77, the value of efficacy of behavior competency is 0.53 to a maximum of 0.74, and the factor loading value of the efficacy of teaching skills is 0.74 to a maximum of 0.87. Each criterion is assigned a score to each item. As Field [29] recommended, we have removed factor loadings with a value below 0.3. The factor loading value of each variable is more than 0.5, so it is acceptable based on the literature. Out of the 25 items initially analyzed, 25 were grouped into four different components.

Table 1. Factors of Nepali TSE.

	Rescaled Component			
	1	**2**	**3**	**4**
Separate my professional and personal obligation.	0.711			
Confidence in addressing classroom problems.	0.676			
Considering the in-depth knowledge of students.	0.614			
Encouraging an active engagement of students.	0.538			
Deliver the lessons smoothly by holding students' attention.	0.564			
Analyze the learning styles of each student and teach.	0.686			
Provide regular counselling.	0.598			
Confidence in increasing student achievement and motivation.	0.665			
Use my language proficiency.	0.634			
Confidence in teaching in general.		0.688		
Preparing for my lessons.		0.778		
Confidence in getting through difficult topics.		0.761		
Designing classwork to effectively achieve lesson objectives.		0.736		
Managing the difficult students.		0.684		
Complete my syllabus/course on time.		0.601		
Relate my teaching topic with students' real life for better learning.			0.536	
Prepare teaching materials in advance to teach a lesson to the students.			0.546	
Solicit support from my principal.			0.665	
Wear a presentable and confident dress.			0.736	

Table 1. *Cont.*

	Rescaled			
	Component			
	1	2	3	4
Take and remember the names of students so that they feel valued.			0.743	
Show respect towards my students.			0.635	
Make my principal happy with my teaching methodologies.				0.811
Make my students happy with my teaching methodologies.				0.702
Make my school management committee or relevant authority happy with how I am helping students learn.				0.877
Make parents happy with my teaching methodologies.				0.789

We named different components identified by EFA to represent most of the items loaded under it based on the literature review and the experience. We were aware 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. [30]) have identified three factors of TSE: engagement of students, instructional strategies, and management of students' behavior. This was performed 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 Treventhan, we believe the instrument lacked the context of Nigeria. As Bandura [12] stated, measuring self-efficacy has to be context-specific and, therefore, guided by local knowledge. Whereas three of the four factors match the Ene et al. study [30], the fourth component of teaching skills seems more Nepal-specific. In Nepal, TSE might be increased by how well a teacher perceives their teaching skills. Therefore, we plan to continue using efficacy in teaching skills as the fourth factor contributing to TSE in Nepali.

3.2. TSE1—Efficacy in Students Engagement

The 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 as depicted in Table 2 show that the minimum mean value was 4.2205 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'.

More than 90% of teachers agreed that they were able to separate their professional and personal obligation while in the classroom and that they were able to confidently address classroom problems. 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. Furthermore, they shared that they analyze the learning styles of each student to teach them, provide regular counseling to their student who could have a positive impact on their behavior, and are confident that their teaching increases student achievement and motivation. They further asserted that they could use their language proficiency to run the classes.

Table 2. Efficacy in students engagement.

Statements	SD	D	N	A	SA	NA	Mean
Separate my professional and personal obligation while in the classroom.	1.0	0.5	2.3	56.9	39.2		4.3282
Confidence in addressing classroom problems.	0.8	1.8	5.6	56.4	35.1	0.3	4.2410
Driving classes considering the in-depth knowledge of students.	1.0	0.8	2.1	60.8	35.4		4.2872
Encourage active engagement of students to maximize my teaching capabilities.	1.0	1.0	3.6	55.1	38.7	0.5	4.3103
Deliver the lessons smoothly by holding students' attention.	1.0	0.8	1.3	58.5	37.7	0.8	4.3333
Analyze the learning styles of each student to teach them.	0.8	0.3	2.8	61.5	34.1	0.5	4.2949
Counselling to Student	1.0		4.4	62.3	31.8	0.5	4.2538
Confidence in increasing student achievement and motivation.	0.8	0.8	6.2	60.3	32.1		4.2205
Use body language proficiency to run my classes.	1.3	0.3	3.1	56.9	38.5		4.3103

3.3. 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 complex topics, timely preparation of teaching materials and completion of syllabus, effective designing of the classwork, and managing the students.

The frequency distribution of Table 3 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 of 4.4. The mean value is close to agreeing and strongly agreeing with the teachers.

Table 3. Efficacy in instructional preparation.

Statements	SD	D	N	A	SA	NA	Mean
Confidence in what I am teaching.	2.3	1.3	0.8	48.7	46.9		4.3667
Prepare for my lesson plans.	2.1	0.8	2.6	45.6	49.0		4.3872
Confidence in getting through difficult topics.	1.5	1.0	2.3	56.7	37.9	0.5	4.3000
Design classwork to effectively achieve lesson objectives.	1.3	1.0	1.8	52.8	42.6	0.5	4.3590
Manage the problematic students ruining the class.	1.8	0.5	2.6	55.6	39.5		4.3051
Complete my syllabus/course on time.	1.8	1.0	1.3	46.7	49.0	0.3	4.4077

3.4. TSE3—Efficacy in Behavioral Competency

The study discussed the efficacy of behavior competency of teachers towards principals and teachers. The frequency distribution in Table 4 shows that all teachers responded positively to their behavior and attitude. More than 90% of teachers believed that they could relate the teaching topic to the students' real life for better quality learning, with a 4.22 mean value.

Table 4. Efficacy in behavioral competence.

Statements	SD	D	N	A	SA	NA	Mean
Relate my teaching topic with students' real life for better learning.	0.8	1.0	8.2	55.1	34.6	0.3	4.2256
Prepare teaching materials.	0.8	2.3	11.0	57.9	27.9		4.1000
Solicit support from my principal.	1.8	1.3	4.4	47.2	45.1	0.3	4.3333
Wear a presentable and confident dress.	2.8	1.8	2.3	41.3	51.5	0.3	4.3769
Take and remember the names of students.	1.5	1.8	7.2	44.1	45.1	0.3	4.3026
Show respect towards my students.	1.5	0.5	1.8	48.5	47.7		4.4026

The descriptive analysis shows that the minimum mean is 4.10, and the maximum mean is 4.40. The teachers of 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, wear presentable and confident dress in front of the class, take and remember names of students so that they feel valued, and show respect towards the students during classroom activities.

3.5. TSE4—Efficacy in Teaching Skills

The study also discussed the efficacy of teaching skills of the teacher to make their academic stakeholders happy, such as the school management committee, principal, students, and parents of students. The frequency distribution in Table 5 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 5. Efficacy in teaching skills.

Statements	SD	D	N	A	SA	NA	Mean
Make my principal happy with my teaching methodologies.	0.5	0.3	12.6	55.4	25.4	5.9	4.2256
Make my students happy with my teaching methodologies.	0.8	0.3	12.1	55.4	27.9	3.6	4.2026
Make my school management committee or relevant authority happy with how I am helping students learn.	1.0	0.3	14.1	51.8	23.8	9.0	4.2410
Make parents of students happy with my teaching methodologies.	0.8	0.3	12.8	53.6	25.6	6.9	4.2385

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 with a good teaching and learning environment. A teacher may be able to influence students' academic outcomes.

A confirmatory factor analysis TSE 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. CFA is either used to confirm the findings from an EFA or it is used if the factors are based on the theory. 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.

The study analyzed the model fit measures to know the value of model fit indices. The result is generally found to be satisfactory because CMIN/DF has a value of 2.110, CFI is 0.970, RMSEA is 0.053, and P close is 0.292. Table 6 shows the interpretation of each measurement scale. Similarly, the value of NFI is 0.94, RFI is 0.932, IFI is 0.970, and TLI is 0.963; thus, the model is regarded as acceptable.

Table 6. Goodness-of-fit indicators for Nepali teachers' self-efficacy.

Measure	Estimate	Threshold (Gaskin and 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)	0.970	>0.95	Excellent
RMSEA (root mean square error of approximation)	0.053	<0.06	Excellent
PClose (*p*-value when RMSEA is >0)	0.292	>0.05	Excellent

Additionally, this study conducted the inter-factor correlations analysis. The inter-factor correlations as depicted in Table 7 demonstrate a strong and positive association between and among the factors. There is a positive and strong relationship between students' engagement and instructional preparation (0.54), behavioral engagement (0.53), and teaching skills (0.58). Likewise, there is a strong relationship between instructional preparation and students' engagement (0.54) and behavioral competence (0.68). However, there is a moderate level of relationship between teaching skills (0.30) and instructional preparation. Likewise, there is a strong and positive relationship between behavioral competence and students' engagements (0.53) and instructional preparation (0.68). A moderate level of relationship exists between behavioral competence and teaching skills. Finally, there is positive relationship between teaching skills and students' engagement (0.58), instructional preparation (0.30), and behavioral engagements (0.25).

Table 7. Inter-factors correlation.

Inter-Factors Correlations of TSE						
Efficacy on		**Students Engagement**	**Instructional Preparation**	**Behavioral Competence**	**Teaching Skills**	**TSE_Tottal**
Students Engagement	Pearson Correlation	1	0.548 **	0.530 **	0.585 **	0.868 **
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
Instructional Preparation	Pearson Correlation	0.548 **	1	0.681 **	0.307 **	0.815 **
	Sig. (2-tailed)	0.000		0.000	0.000	0.000
Behavioral Competence	Pearson Correlation	0.530 **	0.681 **	1	0.257 **	0.791 **
	Sig. (2-tailed)	0.000	0.000		0.000	0.000
Teaching Skills	Pearson Correlation	0.585 **	0.307 **	0.257 **	1	0.653 **
	Sig. (2-tailed)	0.000	0.000	0.000		0.000
TSE_Tottal	Pearson Correlation	0.868 **	0.815 **	0.791 **	0.653 **	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	390	390	390	390	390

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

4. Discussion

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 will be linked to the general Nepali public school context. The findings align with a study by [31] about teachers' belief in self-efficacy among mathematics teachers in Nepal. He identified the engagement of students, management of the classroom, and instructional strategy as key factors that help develop efficacy beliefs. In addition, teachers expressed greater beliefs in terms of their self-efficacy in the instructional planning. The teachers were also efficacious in terms of managing the classroom, the engagement of students, and teaching skills.

Furthermore, it was shown that experienced instructors had much greater self-efficacy levels than rookie teachers [31]. This study did not particularly look at the experience level of teachers and how experience can contribute to overall self-efficacy. Likewise, Ene et al. [30] 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., we believe the instrument lacked the context of Nigeria. As Bandura [12] stated, measuring self-efficacy must be context-specific and guided by local knowledge. Whereas three of the four factors match the Ene et al. study [30], the fourth component of teaching skills seems more Nepal-specific. It further demonstrated that teachers of different backgrounds have different efficacy beliefs. The results show how crucial school-level environmental elements are to teachers' effectiveness as teachers in their working environments. In other words, teachers who felt more positively

about their school's environment thought their classes could be managed better, students could be more engaged in their learning, and they could use more teaching tactics. The findings of this study are in line with previous research studies' findings [32,33] which showed that the teaching–learning school environment had an impact on teachers' ability to educate effectively while at work. The findings demonstrate that in order to enhance the efficiency of the school-level environment, educators and administrators should take into account how teachers' perceptions of school environment elements affect their degree of teaching self-efficacy.

A factor that furthers self-efficacy beliefs is teaching experience. Adhikari [31] 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 better implement instructional strategies. Strictness in class is not appropriate for classroom management. Student-centric and participatory classrooms can positively impact students' learning and achievement [34]. The other determining factor in self-efficacy beliefs is teachers' engagement. The study showed that teachers' efficacy is related to their commitment. A teacher who has stronger self-efficacy beliefs are more engaged in tasks emotionally, physically, and cognitively. Highly engaged teachers demonstrate determination, professionalism, and commitment [35]. 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 might be increased by how well a teacher perceives their teaching skills. As per Bandura, mastery experience will improve one's self-efficacy. This means that the more a teacher practices teaching, the more confident they will be in teaching students. Therefore, in Nepal, effective teaching skills are essential to TSE.

The efficacy of student engagement is a factor contributing to TSE. One of the priorities for teachers is to ensure that students are involved in learning processes and inspire them to be active in classroom management processes. Griffiths, Sharkey, and Furlong [36] 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 directly impacts 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 as contributing to TSE. Teachers' ability to collectively work with students and help them become active agents of learners significantly improves TSE. This statement is in line with Iqbal [37], who claimed that TSE is a function of classroom management, student engagement, and teaching strategies.

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 of 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 their ability to better manage teaching and learning processes. A teacher's performance depends on how well their students perform in the class, as measured by any quantitative indicators. Based on this study, instructional preparation includes indicators, such as how experience contributes to confidence in teaching, lesson 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. [21]. They stated that persistence in solving complex teaching topics, ensuring that students remain motivated and goal-oriented, and knowing 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.

The third factor to contribute to TSE is behavioral competency. For this study, behavioral competency would mean teachers' competencies in a teaching context. According to the Economic Times, behavioral competency refers to attributes, such as effective teamwork, skills, knowledge, and technical know-how, which can influence an individual's development in an organization. In the case of teaching, we referred to behavioral competency as behaviors that teachers apply to make the teaching and learning process effective and meaningful for students. Moreover, this includes the management of classroom activities. Martin et al. [38] shared that teachers' characteristics might influence their efficacy. Likewise, Fives [11] shared that maintaining a 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 essential to implement practical educational activities and practices [39]. Thus, the behavioral competency of teachers is a factor that significantly contributes to TSE.

Efficacy in the notion of teaching skill is the fourth factor of NTSE. In most literature, as stated above, only three factors teach self-efficacy. We have come up with the fourth factor, which we believe results from context and specificity, as Bandura suggested [12]. Teachers can achieve desired results in students' learning and achievement by using the knowledge of content combined with teaching skills and self-efficacy beliefs in their capabilities to apply effective instructional practices [20]. In this study, teaching skills have consequences, such as principals, parents, school management committee, students, and parents being happy with teachers teaching skills. This construct is more related to the self-efficacy source of verbal persuasion. The reactions to teachers' good teaching contribute to their self-efficacy. Therefore, teaching skill is a factor that contributes to TSE and is key to students' learning and academic achievement.

In conclusion, many variables, directly and indirectly, affect the teacher's self-efficacy. Although this study extracted four factors as outlined above, there are other variables that fall into one of those factors. Those variables include support and encouragement from the school management committee, students, and guardians; regularly providing teachers with training in 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 the 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 an increase in teachers' self-efficacy.

5. Conclusions

Four factors contribute to Nepali 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' relationships 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 developing TSE. Many variables, directly and indirectly, affect teacher's self-efficacy. Although the EFA extracts four factors, as outlined above, other variables might fall into one of those factors. Those variables include support and encouragement from the school management committee, students, and guardians; regularly providing teachers with training in emerging teaching trends; and availability of teaching and learning materials. Coordination and collaboration between teachers, their continued exchange of knowledge and approaches, and regular interaction with parents and the school management committees improve their motivation, resulting in improved self-efficacy. Since teachers' self-efficacy beliefs can vary depending on the situations they face and students they interact with, it is important to

explore the indirect relationship between teachers' classroom management practices and students' capabilities to carry out required academic activities. Teachers with a higher level of self-efficacy can help improve students' learning and achievement.

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