



Ministry of Education, Youth and Sport

The University of Cambodia

College of Education

**THE IMPACT OF SCHOOL DIRECTORS' INSTRUCTIONAL
LEADERSHIP ON TEACHERS' COLLECTIVE EFFICACY AND
COMMITMENT AT THE SECONDARY RESOURCE SCHOOLS
IN CAMBODIA**

Dissertation

**Submitted to The University of Cambodia in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy in
Educational Science**

KHAN SOMPHORS

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ID: UC-90-20-01-21

Main Supervisor: Prof. MOK SAROM, PhD

Co-Supervisor: SAM RANY, PhD

2025

DEDICATION

This dissertation is devoted to my special and cherished parents and my beloved family. Their unwavering dedication and support, as essential people in my life, have given me the confidence and enabled me to compose and finish this work.

I adore and respect them.

STATEMENT OF ORIGINAL AUTHORSHIP

I hereby certify that I am the only author of this dissertation, unless stated otherwise. Moreover, I confirm that the results shown are precise, unbiased, and honest. I further declare that this dissertation has not been submitted, either in whole or in part, to any other university for the purpose of earning credit toward another degree. I comprehend that if any of these statements are proven false, I will lose the right to receive the doctorate; if this is found out afterward, the degree may be revoked.

Signature: 

KHAN Somphors

Date: 22nd March, 2025

Supervisors' approval:

Signature: 

Prof. MOK Sarom, PhD

Date: 28th March 2025

Signature: 

SAM Rany, Phd

Date: 28th March 2025

STATEMENT OF COMMITTEE APPROVAL

We declare that we have read this dissertation and that, in our opinion, it is satisfactory in scope and quality as a contribution towards the degree of *Doctoral of Philosophy in Educational Science*

DISSERTATION COMMITTEE

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Finally, I am very thankful to my parents, dear wife and daughters for their encouragement, understanding, love and support in my pursuing doctoral studies at the University of Cambodia in Educational science. Therefore, there is nothing that can be compared to this ultimate goodness.

ABSTRACT

This study aims: (1) to validate three constructs: instructional leadership (IL), teacher collective efficacy (TCE), and teacher commitment (TC); (2) to examine the overall levels of these variables perceived by teachers; (3) to compare the levels of variables; (4) to examine their relationships; and (5) to analyze the impact of independent variable (IL) on the dependent variable (TC) through a mediating variable (TCE). A sample of 619 secondary resource school teachers was selected using simple random sampling. The study employed quantitative approach including exploratory factor analysis (EFA) to validate the sub-constructs in the Cambodian context, followed by confirmatory factor analysis (CFA) to assess convergent and discriminant validity. Data were also analyzed using descriptive statistics, inferential statistics, and structural equation modeling (SEM).

The key findings were summarized as follows:

1. Exploratory factor analysis (EFA) of study variables in Cambodian context displayed that IL emerged to two sub-factors: establishing a school mission (SM) and developing a positive learning climate (PLC). Teacher commitment (TC) was reduced to two sub-factors: teacher commitment to organization/school (TCO) and commitment to teaching (TCT). TCE was reduced to a single dimensional factor. Factor loadings for all 5 sub-factors were higher than 0.5, indicating that items have strong relationship with underlying factors. These findings supported the construct validity of each factor. Confirmatory Factor Analysis (CFA) confirmed convergent and discriminant validity as well as indicated measurement model fits the empirical data very well ($\chi^2 (485) = 923.78, p < 0.001$, CFI = 0.94, TLI = 0.94, SRMR = 0.040, RMSEA = 0.046).

2. The results of descriptive statistics showed teachers perceived high grand mean scores for all variables: IL (M = 4.13), TC (M = 4.40), and TCE (M = 3.84).

3. The results of casual-comparative design showed that teachers in the Coastal and Sea regions rated their principals' ability to create school mission higher than those in the Central Plain region, but teachers in three regions perceived no significant differences in their directors' ability to develop positive school learning climate. Moreover, teachers in the Coastal and Sea regions also reported higher commitment to teaching than those in the Central Plain region.

4. Pearson correlation analysis indicated significant positive correlation between five components with coefficients ranging from $r = 0.37$ to $r = 0.49$ ($p < 0.001$).

5. This study employed both multiple regressions analysis and structural equation modeling within a correlational study design. Multiple regressions were employed to assess direct relationships among key variables, offering an initial understanding of predictive effects. Results showed that IL significantly predicted teacher commitment to teaching (Adjusted $R^2 = 0.206$, $F(5, 613) = 33.026$, $p < 0.001$) and commitment to school (Adjusted $R^2 = 0.283$, $F(5, 613) = 49.683$, $p < 0.001$). Additionally, the IL significantly predicted teacher collective efficacy $F(2, 616) = 87.142$, $p < 0.0001$, Adjusted $R^2 = 0.218$). To further explore the complex relationships among these variables, SEM was conducted and demonstrated that TCE mediated the relationship between IL and teacher commitment. IL had effects on teacher commitment both directly ($\beta = 0.365$, $p < 0.001$) and indirectly mediated by teacher collective efficacy ($\beta = 0.430$, $p < 0.001$). The structural equation model revealed an acceptable good fit ($\chi^2(439) = 1129.53$, $p < 0.001$; RMSEA = 0.050; CFI = 0.94; TLI = 0.92; and SRMR = 0.060).

Keywords: Instructional Leadership, Teacher Commitment, Teacher Collective Efficacy, Secondary Resource Schools

ABSTRACT IN KHMER

ការសិក្សានេះ មានគោលបំណង ដើម្បី៖ ១- កំណត់ភាពត្រឹមត្រូវនៃអថេរទាំងបី គឺភាពអ្នកដឹកនាំ បច្ចេកទេស ភាពជឿជាក់ និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន ២- ពិនិត្យទស្សនៈគ្រូបង្រៀនពាក់ព័ន្ធនឹងអថេរទាំងនេះ ៣- ប្រៀបធៀបកម្រិតនៃអថេរ ៤- ពិនិត្យមើលទំនាក់ទំនងអថេរ និង៥- វិភាគឥទ្ធិពលរបស់អថេរហេតុ (IL) លើអថេរផល (TC) តាមរយៈអថេរចម្លង (TCE)។ សំណាកស្រាវជ្រាវ ជាគ្រូបង្រៀនសាលាមធ្យម សិក្សាធនធានចំនួន៦១៩ នាក់ ត្រូវបានជ្រើសរើសតាមវិធីជ្រើសរើសសំណាកចៃដន្យសាមញ្ញ (Simple Random Sampling)។ ការសិក្សានេះប្រើប្រាស់វិធីសាស្ត្របរិមាណវិស័យ រួមមាន ការវិភាគកត្តាអ៊ែកស្រាវ (Exploratory Factor Analysis - EFA) ដើម្បីកំណត់ភាពត្រឹមត្រូវរបស់ឧបករណ៍ស្រាវជ្រាវក្នុងបរិបទ កម្ពុជា និងការវិភាគបញ្ជាក់កត្តា (Confirmatory Factor Analysis - CFA) ដើម្បីបញ្ជាក់ពីភាពរឹងមាំ របស់អថេរនីមួយៗនិងភាពខុសគ្នារវាងអថេរទាំងបី។ ទិន្នន័យ ត្រូវបានវិភាគដោយប្រើស្ថិតិពណ៌នា ស្ថិតិ សន្និដ្ឋាន និងគំរូសមីការរចនាសម្ព័ន្ធ (Structural Equation Modeling - SEM)។

លទ្ធផលសំខាន់ៗ ត្រូវបានសរុបបាន ដូចខាងក្រោម៖

១-ការវិភាគកត្តាអ៊ែកស្រាវ (EFA) អថេរសម្រាប់ការសិក្សានេះក្នុងបរិបទកម្ពុជា បានរកឃើញថា អថេរភាពជាអ្នកដឹកនាំបច្ចេកទេស មានកត្តាទាំងបី គឺ ការបង្កើតបេសកកម្មសាលារៀន និងការ អភិវឌ្ឍបរិយាកាសសិក្សាវិជ្ជមាន។ អថេរការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន បានបង្ហាញថា មានកត្តាទាំងបី គឺ ការប្តេជ្ញាចិត្តចំពោះអង្គភាព/សាលា និងការប្តេជ្ញាចិត្តចំពោះការបង្រៀន។ អថេរភាពជឿជាក់របស់ គ្រូបង្រៀន ត្រូវបានរកឃើញថា មានកត្តាទាំងបី គឺ បន្ទុកកត្តាទាំងបី នេះ មានតម្លៃខ្ពស់ជាង ០,៥ ដែលបង្ហាញថា សូចនាករមានទំនាក់ទំនងខ្លាំងជាមួយកត្តារងរបស់អថេរ។ លទ្ធផលនេះ គាំទ្រភាពត្រឹម ត្រូវនៃការបង្កើតសូចនាករសម្រាប់កត្តារងនៃអថេរនីមួយៗ។ ទន្ទឹមនេះ ការវិភាគបញ្ជាក់កត្តា (CFA) បានបញ្ជាក់ពីភាពត្រឹមត្រូវនៃសូចនាករដែលបង្កើតអថេរនីមួយៗ ក៏ដូចជាភាពត្រឹមត្រូវនៃការបំបែកអថេរ ចេញពីគ្នា និងបានបង្ហាញថា រង្វាស់គំរូស៊ីគ្នានឹងទិន្នន័យជាក់ស្តែងបានយ៉ាងល្អ ($\chi^2(485) = 823,78, p < 0,009, CFI = 0,94, TLI = 0,94, SRMR = 0,040, RMSEA = 0,046$)។

២-លទ្ធផលស្ថិតិពណ៌នា បានបង្ហាញថា ទស្សនៈរបស់គ្រូបង្រៀនលើអថេរចម្លងទាំងបី មានមធ្យមភាគខ្ពស់ រួមមាន ភាពជាអ្នកដឹកនាំបច្ចេកទេស ($M = 4,93$) ការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន ($M = 4,40$) និង ភាពជឿជាក់របស់គ្រូបង្រៀន ($M = 3,84$)។

៣-លទ្ធផលសិក្សាវិភាគចេញពីការប្រៀបធៀប បានបង្ហាញថា គ្រូបង្រៀននៅតំបន់ឆ្នេរនិង សមុទ្រ បានវាយតម្លៃសមត្ថភាពរបស់នាយកសាលាក្នុងការបង្កើតបេសកកម្មសាលារៀនខ្ពស់ជាងតំបន់ ទំនាបកណ្តាល។ គ្រូបង្រៀននៅតំបន់ទាំងបី មានទស្សនៈមិនខុសគ្នាលើសមត្ថភាពរបស់នាយកសាលា ក្នុងការបង្កើតបរិយាកាសសិក្សាវិជ្ជមាន។ គ្រូបង្រៀននៅតំបន់ឆ្នេរនិងសមុទ្រមានការប្តេជ្ញាចិត្តចំពោះ ការបង្រៀនខ្ពស់ជាងគ្រូបង្រៀននៅតំបន់ទំនាបកណ្តាល។

៤-លទ្ធផលការវិភាគទំនាក់ទំនង បានបង្ហាញថា កត្តាទាំងបី មានទំនាក់ទំនងវិជ្ជមានក្នុង កម្រិតមធ្យមចន្លោះពី $r = 0,37$ ដល់ $r = 0,49$ ($p < 0,009$)។

៥-លទ្ធផលការវិភាគដោយប្រើពហុសមីការលីនេអ៊ែរ បានបង្ហាញថា ភាពជាអ្នកដឹកនាំ បច្ចេកទេសបានព្យាករណ៍ ការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀនពាក់ព័ន្ធនឹងការបង្រៀន ($Adjusted R^2 = 0,206$,

$F(5, 693) = 33,026, p < 0,009$) និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀនចំពោះសាលា (Adjusted $R^2 = 0,283, F(5, 693) = 49,683, p < 0,009$)។ ទន្ទឹមនេះ ភាពជាអ្នកដឹកនាំបច្ចេកទេស បានព្យាករណ៍ភាពជឿជាក់របស់គ្រូបង្រៀនយ៉ាងត្រឹមត្រូវ ($F(2, 693) = 87.942, p < 0,0009, \text{Adjusted } R^2 = 0,298$)។ ដើម្បីពិនិត្យពីទំនាក់ទំនងស្មុគស្មាញរវាងអថេរទាំងនេះ គំរូសមីការចរនាសម្ព័ន្ធ ត្រូវបានប្រើនិងបង្ហាញថា ភាពជឿជាក់របស់គ្រូបង្រៀនជាអថេរចម្លងសម្របសម្រួលទំនាក់ទំនងរវាងភាពជាអ្នកដឹកនាំបច្ចេកទេសនិងការប្តេជ្ញាចិត្តរបស់គ្រូ។ ភាពជាអ្នកដឹកនាំបច្ចេកទេស មានឥទ្ធិពលលើការប្តេជ្ញាចិត្តរបស់គ្រូដោយផ្ទាល់ ($\beta = 0.365, p < 0.009$) និងសម្របសម្រួលដោយប្រយោលតាមរយៈភាពជឿជាក់របស់គ្រូបង្រៀន ($\beta = 0.430, p < 0,009$)។ គំរូសមីការចរនាសម្ព័ន្ធបង្ហាញថាស៊ីគ្នានឹងទិន្នន័យបានយ៉ាងល្អ ($\chi^2(439) = 9929.53, p < 0.009, \text{RMSEA} = 0.050; \text{CFI} = 0.94, \text{TLI} = 0.92, \text{SRMR} = 0.060$)។

ពាក្យគន្លឹះ៖ ភាពជាអ្នកដឹកនាំបច្ចេកទេស ការប្តេជ្ញាចិត្តរបស់គ្រូ ភាពជឿជាក់របស់គ្រូបង្រៀន សាលាមធ្យមសិក្សាធនធាន

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	: Analysis of Variance
ASV	: Average Shared Variance
BIFI	: Bollen Incremental Fit Index
CFA	: Confirmatory Factor Analysis
CFI	: Comparative Fit Index
DIL	: Directors' Instructional Leadership
DTMT	: District Training and Monitoring Team
ECM	: Efficacy for Classroom Management
EFA	: Exploratory Factor Analysis
ESP	: Education Strategic Plan
FL	: Factor Loading
GFI	: Goodness of Fit Index
IL	: Instructional leadership
KMO	: Kaiser–Meyer–Olkin
MoEYS	: Ministry of Education, Youth and Sport
MGC	: Mean of Group Competence
MIP	: Managing Instructional Program
MPLC	: Mean of Positive Learning Climate
MSM	: Mean of School Mission
MTCO	: Mean of Teacher Commitment to School
MTCT	: Mean of Teacher Commitment to Teaching
MR	: Multiple Regression
MS	: School Mission
MSV	: Maximum Shared Variance
NFI	: Normed Fit Index
NGOs	: Non-Governmental Organizations
NNFI	: Non-Normed Fit Index
PCT	: Personal Construct Theory
PIMRS	: Principal Instructional Management Rating Scale
PLC	: Positive Learning Climate
PNFI	: Parsimony Normed Fit Index
RMSEA	: Root Mean Square Error of Approximation

SCT	: Social Cognitive Theory
SEM	: Structural Equation Modeling
SRMR	: Standardized Root Mean Square Residual
TCE	: Teachers Collective Efficacy
TC0	: Teacher Commitment to Organization or school
TCS	: Teacher Commitment to Students
TCT	: Teacher Commitment to Teaching
TLI	: Tucker-Lewis Index

CHAPTER 1

INTRODUCTION

This section outlines the logical progression. First, the background discusses learning crisis characterized by high dropout rate and low learning achievement. To solve this critical issue, the effects of leadership styles on teacher attitudinal outcomes including teacher commitment and collective efficacy, and the efforts made by the Ministry of Education, Youth and Sport have been well-documented. The prior literature indicates that these three key psychological constructs have positive impacts on student learning achievement. Second, the research problem is stated focusing on both low levels of teachers' commitment in Cambodia and the limited studies on three constructs in Asian countries as well as Cambodian nation. Third, the research objectives and questions are raised to address the stated problem, and the conceptual framework is developed for the present study drawing on both the previous correlational research designs and theoretical perspectives. The empirical studies have primarily paired the two variables for example, instructional leadership and teacher commitment; instructional leadership and collective efficacy; teacher commitment and collective efficacy. Based on this, the researcher is able to frame the relationship between instructional leadership, teacher commitment and collective efficacy simultaneously. The definitions of the study variables, significance of the study are also highlighted in this section.

1.1 Background of the Study

A learning crisis engulfs the education institutions of developing nations, preventing them from achieving sustainable development goal 4. This mainly characterized by two key terms including high dropout rates and low student learning achievement (Garg, 20924). The Sub-Saharan region has the highest secondary education dropout rates, at 37.5%, followed by South Asia at 15.5% and the Middle East at 11%, (Mnyawami et al., 2022). According to Ministry of Education Youth and Sport (MoEYS), the completion rates of primary and lower secondary students in Cambodia were 79.9% and 42.6%, respectively. In addition to this, the results of the grade eight national tests administered in the academic year 2013–2014 demonstrated that eighth graders nationwide were able to correctly answer the questions in mathematics (44%), physics (52.8%), and Khmer language (55.6%). According to

PISA-D scores, only 8% of 15 year-old students could read at a basic level, while only 10% and 5% of 15 year-old children could achieve this basic level in math and science respectively (MoEYS, 2018).

Leadership styles and teacher's attitudes play very important roles in addressing this learning crisis. According to several studies (Al-Mahdy et al., 2018; Flessa et al., 2017; Hallinger et al., 2017; Huber et al., 2017), school leadership styles impact teachers, student learning achievement as well as the teaching processes. Thus, enhancing the quality of education requires a strong emphasis on the leadership styles of school principals, teacher commitment, and teacher collective efficacy. Goddar, Hoy and Hoy (2004) claimed that teacher collective efficacy enhance teacher commitment to school goals and increase student academic achievement. Some studies indicate that perceived collective efficacy has strong relationship with student achievement in schools (Bandura, 1993; Goddard et al., 2000). Furthermore, research has demonstrated a connection between student learning achievement and instructors' commitment (Park, 2005; Shahzad & Naureen, 2017). Despite the critical role of teacher commitment in enhancing learning outcomes, research has revealed a lack of commitment among Cambodian teachers. There were instances of teachers missing work, as well as a high number of tardy (Bray et al., 2018). According to research, teacher commitment is critical to the success and sustainability of education reform, as well as the effectiveness of schools. It also has an impact on teacher performance, teacher turnover, and student learning (Dee et al., 2006; Park, 2005). Additionally, Firestone and Pennell (1993) as well as Smylie (1990) asserted that at least six key workplace variables—teacher efficacy and autonomy, participation, feedback, teamwork, learning opportunities, and resources—could influence teachers' commitment.

Teacher commitment and leadership are the key factors in addressing low learning achievement and ensuring school success. Given the critical role of commitment to teaching in school improvement and student academic achievement (Dannetta, 2002) and the strong relationship between students' learning achievement and teacher commitment to their teaching profession, school, and to students (Altun, 2017, Firestone & Rosenblum 1988), achieving quality education is impossible without motivated and truly committed teaching staff (Manning & Patterson, 2005; Rikard, 1999). According to Cheung (2008), pupils who have highly effective teachers exhibit high levels of academic accomplishment, autonomy, motivation, and a strong belief in their own efficacy. Furthermore, research has shown that proficient leadership and

management in schools have a positive impact on students' academic progress and performance (Lunenburg & Ornstein, 2012; Morefield, 2007). According to a meta-analysis by Robinson et al. (2008), transformational leadership had an average influence on student outcomes that was three to four times smaller than that of instructional leadership.

Various leadership styles impact teachers' attitudinal outcomes such as affective commitment, job satisfaction, employment engagement, and organizational commitment (Hoch, 2018). While authentic leadership has a positive correlation with engagement and job satisfaction (Neider & Schriesheim, 2011; Wong et al., 2010), transformational leadership influences followers through value internalization and work engagement (Bono & Judge, 2003), and is strongly associated with follower engagement and job satisfaction (Judge & Piccolo, 2004). Authentic leadership has positive correlation with performance (Clapp-Smith et al. 2009; Walumbwa et al. 2008), psychological empowerment (Walumbwa et al. 2010), organizational citizenship behavior (Peus et al. 2012; Walumbwa et al. 2008, 2010), trust in management (Clapp-Smith et al. 2009, Walumbwa et al. 2010), organizational commitment (Peus et al. 2012), and with work engagement (Walumbwa et al. 2010). Furthermore, studies have found that servant leadership (Chan & Mak, 2014) and ethical leadership (Den Hartog & Belschak, 2012; Neubert, Carlson et al., 2009) positively correlate with engagement and job satisfaction, while instructional leadership increases collective teacher efficacy (Calik et al., 2012; Fancera & Bliss, 2011; Goddard et al., 2015; Hallinger et al., 2016).

In order to better align the school with its aims and objectives, boost teacher motivation, and improve student achievement, school leaders employ a variety of leadership philosophies (Arar & Abu Nasra, 2019; Bellibas & Liu, 2018). Therefore, further research on affect-related mediators is necessary to fully understand how instructional school leadership enhances teachers' commitment, collective efficacy and motivation. For instance, since the theoretical research indicates that transformational leadership encourages a positive emotional development in followers, we recommend that instructors' emotional experiences warrant particular consideration (Bass, 1985). According to research by Goddard et al. (2004), instructors who have high self-efficacy views are considerably more adept at using classroom management strategies than those who have low self-efficacy beliefs.

However, a few studies examined the relationship between instructional leadership behaviors and teacher self-efficacy (Calik et al., 2012; Fackler & Malmberg,

2016). In fact, Calik et al. (2012) discovered that self-efficacy and collective efficacy were positively and significantly impacted by instructional leadership. Teachers that exhibit low instructional self-efficacy are actually less committed to their work (Bandura, 1997). A growing body of empirical research on instructional leadership has emerged only recently from developing societies in Asia, Africa, and Latin America (Bellibas et al., 2016; Bush, 2013; Fromm et al., 2016; Walker & Hallinger, 2015), despite the fact that the field of instructional leadership has changed significantly over the past few decades in Western societies (e.g., Hallinger, 2011; Hallinger & Wang, 2015; Leithwood et al., 2010; Marks & Printy, 2003; Robinson, 2006). Hallinger and colleagues (2018a) noted that most Malaysian studies on instructional leadership adhere to a basic conceptual model that solely employs descriptive statistics and correlational analysis. Such a narrow statistical analysis may limit the ability of studies to produce more comprehensive results.

While a few studies conducted on the interrelation of instructional leadership, teacher commitment and collective efficacy, emerging researches indicate a positive among these constructs and their collective effects on teacher engagement and student learning achievement. In fact, a growing body of research on the related notion of academic optimism (Hoy, 2008; McGuigan & Hoy, 2006) empirically supports the idea that principals who exhibit achievement-directed actions and express positive efficacy beliefs might boost teacher engagement. Moreover, research conducted by Hallinger et al. (2018b) has shown that there is a positive association between principle instructional leadership and teacher commitment among Iranian primary school teachers and school administrators. The study's conclusions support past studies that demonstrated a significant relationship between teachers' self-efficacy and improved student accomplishment. Teachers' passion, commitment, and instructional methods impacted this relationship (Mojavezi & Tamiz, 2012; Tschannen-Moran & Hoy, 2001; Tournaki & Podell, 2005; Wolters & Daugherty, 2007). Research on how teacher collective efficacy mediates the relationship between teacher commitment and instructional leadership, however, was scant.

In the majority of countries, including Cambodia, efforts have been made to train younger generations to deal with economic globalization, developments, and international competitiveness (Cheong & Mok, 2007; Hang, 2018; Li et al., 2016). National and local governments have implemented educational changes and made efforts to enhance the efficiency of school systems. A reasonable salary can make

teachers stop having second careers, which in turn allows them to have more time to focus on research to update their knowledge and teaching methodology (Rautakivi et al., 2019). The Cambodian government has made constant significant efforts to increase education expenditures and made reforms in order to produce engaged, productive, responsible, and global citizens who are able to respond to the social, political, and economic needs of the future (Council of Ministries, 2015).

Despite this, Cambodia has continued to struggle with the challenges of a learning crisis. In 2018, the enrollment rate for lower secondary schools was 55%, despite the fact that the enrollment rate for primary schools had climbed to 98%. As a matter of fact, Cambodia's educational system has been plagued by a high dropout rate during the transitional cycles that occur between different levels of academic instruction. According to Bredenberg (2018), Chea and Ogawa (2020), and the Ministry of Education and Youth Sport (2018), even though there was no change in the magnitude of dropouts in the sector, the dropout rates at the upper secondary school level have actually increased dramatically. According to Chea and Ogawa's 2020 research, the national assessment conducted in 2013 revealed that the majority of students, 66%, scored below the basic level of writing proficiency, while 39% scored below the basic level of reading proficiency. Furthermore, less than 10% of students aged 15 were able to achieve the standard of reading and mathematical competence.

Despite the vital role of leadership in influencing student learning achievement, there is limited research conducted in Asian countries. There is a lot of evidence that good leadership and management are important for achieving higher levels of education in global education system as well as Cambodian nation (MoEYS, 2014; OECD, 2009). The concept of instructional leadership has been increasingly included into the role set of principalship all around the world over the course of the previous half-century (Hallinger & Wang, 2015; Walker & Hallinger, 2015). Empirical studies of instructional leadership have only recently begun to emerge from developing societies in Asia, Africa, and Latin America (e.g. Bellibas et al., 2016; Fromm et al., 2016; Walker & Hallinger, 2015), despite the fact that the knowledge base on instructional leadership has undergone significant development over the course of the past several decades in Western societies (Hallinger, 2011; Hallinger & Wang, 2015; Leithwood et al., 2010; Robinson, 2006). The majority of principals believe that instructional leadership can be utilized since it is centered on enhancing the outcomes of student accomplishment (Yunita, 2015). Additionally, instructional leadership has garnered a

lot of attention in the context of Chinese schools (Liu & Hallinger, 2021; Ng et al., 2015). Ma and Marion (2021) and Zheng et al. (2019) are two examples of studies that have focused on instructional leadership, teacher commitment, and self-efficacy among elementary or high school teachers in mainland China. The majority of these studies came from mainland China. According to Rizkita and Supriyanto's research from 2020, the leadership role of principals in Indonesia has not been focused on managing the teaching and learning process in order to improve the school's status. This is in contrast to the situation in Malaysia.

1.2 Statements of the Problem

The primary objectives of the Royal Government of Cambodia (RGC) are to establish a society that is peaceful, politically stable, and secure. It seeks to achieve this by adhering to a path of sustainable and equitable development. Additionally, it endeavors to educate and cultivate its people so that they can live in harmony within their families and throughout society as a whole (MoEY, 2019). Pentagons are Cambodia's five strategic objectives, which are growth, employment, equity, efficiency, and sustainability (RGC, 2018). Cambodia's goal is to achieve the status of an upper-middle-income country by the year 2030 and a high-income country by the year 2050. Consequently, in order to effectively respond to these strategic objectives, it is essential to make investments in the development of human capital. One of the most important strategic pentagons is human capital development, which focuses on five important aspects: (a) the improvement of the quality of education, sports, science, and technology; (b) the training of technical skills; (c) the enhancement of people's health and well-being; (d) the strengthening of social protection systems and food systems; and (e) the improvement of the quality of citizenship in a highly civilized society that is characterized by morality, equity, and inclusiveness (RGC, 2023).

The Royal Government of Cambodia has worked hard to reach its goals and strategic objectives. It has increased spending on education and made reforms to create engaged, productive, responsible, global citizens who can meet the social, political, and economic needs of the future (Council of Ministries, 2015). It has also listened to Cambodian teachers who said the government should raise salaries to keep up with the rising cost of living and to provide teachers with reasonable pay so they don't have to work second jobs and have more time to do research to improve their teaching methods and knowledge (Rautakivi et al., 2019).

An investigation revealed that Cambodian educators exhibited a low level of commitment. Bray et al. (2018) reported that teachers were occasionally absent from school and frequently arrived late to class. There is a significant amount of time lost and a lack of attention among Cambodian pupils, which result in learning possibilities that are not comparable to those in PISA-D countries (MoEYS, 2018). The interviewees believed that their low pay justified a lack of attention to their government classes, and some of the teachers mentioned that in addition to their schoolwork, they had other professions, such as running enterprises, raising animals, or working as tour guides. Despite the fact that the teachers did not directly acknowledge the impact of their absenteeism and tardiness had influence on their teachings, they did confess that they were commonly unable to complete the syllabus during standard hours. The major unspoken message from teachers in the hidden curriculum was that other commitments could be valued more highly than teaching and learning during government school hours (Bray, et al., 2018). A study that was carried out in Cambodia revealed that teachers in government classrooms in Cambodia performed tricks on their students by making fewer attempts, providing fewer additional materials or exercises, and giving fewer exercises than they did in private tutoring sessions. On the other hand, the teachers in the government schools did not complete the curriculum or perform any activities. The majority of teachers carried out their duties in the government hours with a lack of passion, concern, and excitement toward their work. As a result of their haste to complete the curriculum, they did not make any effort to ensure that the students understood the materials (Bray et al., 2018).

On the other hand, the above mention of teacher behaviors are the complete opposite of those exhibited by a committed teacher. In fact, a committed teacher is likely to: (a) be less tardy, work harder, and be less inclined to leave the workplace; (b) devote more time to extracurricular activities in order to accomplish the goals of the school and school system; (c) perform work better; (d) influence student achievement; (e) believe in and act upon the goals of the schools and system; (f) exert efforts beyond personal interest; and (g) intend to remain a member of the school system (Reyes, 1990).

Teachers with poor levels of commitment often exhibit low teaching performance, and remain a big issue in their teaching profession. According to the research that has been conducted, a low level of commitment to teaching among instructors is a problem that the teaching profession is confronting in many countries.

Despite the widespread recognition of the value of teachers' dedication, this issue persists. Research conducted by Billingsley (2004), Ruhland (2001), and Tait (2008) has shown that a significant factor in influencing teacher turnover is a teacher's level of dedication to their profession. High rates of teacher turnover, which include quits, absences, and instructors who are unhappy or unmotivated, show that people don't care much about teaching, as shown by the high rates of teacher turnover (Macdonald 1999; Mulkeen et al. 2007).

Instructional leadership play very important role in enhancing teachers' attitudinal outcome including teacher job satisfaction (Bellibas, and Liu, 2017), job performance (Namutebi, 2019; Tatlah et al., 2019), commitment (Sarikaya, & Erdogan, 2016) and collective efficacy (Cansoy & Parlar, 2018). However, there have been few studies on the relationship between instructional leadership, teacher collective efficacy and commitment mainly in Asian countries (Al-Mahdy et al., 2018; Hosseingholizadeh, et al., 2023; Cansoy et al., 2022). Moreover, Hallinger and Walker (2017) found that principals generally have less authority over the curriculum of their schools when they studied five Asian societies: China, Taiwan, Malaysia, Singapore, and Vietnam. These societies constrain the instructional leadership role of curriculum coordination, as suggested by Hallinger and Murphy (1985). Similarly, the Cambodian educational system provides limited authority for school principals over the curriculum. Therefore, conducting the present study on the relationship of instructional leadership, teacher commitment and collective efficacy within Cambodian context is both needed and relevant.

In conclusion, the Royal Government of Cambodia (RGC) aims to make Cambodia a peaceful and stable nation by promoting long-term growth and focusing on the improvement of human capital through education and other means. Although the government has increased expenditure and made new reforms in education, Cambodian teachers are not very committed, as shown by the fact that many of them miss daily work, lose their teaching and student learning hours, and don't try their best during school hours. Such teaching behaviors negatively affect students learning achievement. Inadequate wage and the need for teachers to seek second jobs exacerbate this lack of commitment as they may be more committed to this additional employment. These issues make it hard for teachers to be accountable and make their teachings less effective, which stops schools from reaching their goals. It has been demonstrated that instructional leadership have positive effects on teacher commitment and performance.

However, a few studies have been conducted in Cambodian context. The purpose of this study is to look into the link between instructional leadership, teacher commitment, and collective efficacy in Cambodia. It is important to do more research into these relationships because school principals don't have much control over the curriculum.

1.3 Objectives of the Study

The objectives of correlational research design are fivefold

1. To validate the scales of instructional leadership, teacher collective efficacy and teacher commitment using exploratory and confirmatory factor analysis.
2. To examine the levels of directors' instructional leadership, teacher collective efficacy, and teacher commitment as perceived by teachers.
3. To compare teachers' perceptions of directors' instructional leadership, teacher collective efficacy, and teacher commitment across different regions.
4. To examine the relationships between instructional leadership, teacher collective efficacy and teacher commitment.
5. To investigate the structural relationships and effect sizes of directors' instructional leadership, teacher collective efficacy on teacher commitment as examined through multiple regressions and structural equation modeling.

1.4 Research Questions

This research aims to validate the measurement instruments for instructional leadership, teacher collective efficacy, and teacher commitment within Cambodian educational context and to understand teachers' perceptions of instructional leadership and commitment, as well as collective efficacy and to explore how these perceptions differ across regions as well as the correlations between these key elements.

1. How can initial tools of instructional leadership, teacher collective efficacy, and teacher commitment be validated in the Cambodian context using exploratory and confirmatory factor analysis?
2. To what extent do teachers perceive directors' instructional leadership, as well as their own collective efficacy and commitment?
3. How do teachers' perceptions of directors' instructional leadership, their own collective efficacy, and commitment differ across regions?
4. What are the relationships among measures of instructional leadership components, teacher collective efficacy and teacher commitment?

5. What are the structural relationships and effect sizes of directors' instructional leadership and teacher collective efficacy on teacher commitment, as examined through multiple regressions and structural equation modeling?

1.5 Significance of the Study

According to House (1996), the path-goal theory investigates the dynamic interaction that occurs between nominally appointed superiors and subordinates in the course of everyday operations. More specifically, the theory focuses on the ways in which leaders impact the commitment and sense of self of their subordinates. The purpose of this study is to provide more empirical support for the essential characteristics that influence teacher commitment. More specifically, the study investigates the impact of instructional leadership on teacher commitment, with collective efficacy serving as a mediator. In doing so, it makes a significant contribution to the existing body of literature by providing vital new insights.

In the context of Cambodia, where there is a paucity of research on instructional leadership and where the management of the school curriculum continues to be heavily centralized, the study plays a particularly important role. It is vital to do this research in order to discover effective leadership models inside Cambodia's education system, which will result in the discovery of viable development pathways. The Ministry of Education, Youth, and Sport (MoEYS) and other educational institutions can utilize the scientific findings from this study to formulate leadership policies. Furthermore, the research will encourage the adoption of evidence-based current leadership styles, thereby enhancing the leadership skills of educational leaders, particularly school directors. This research will also be helpful for teacher training institutions that offer training for teachers and school directors, as it will serve as a resource for the development of school leadership programs that incorporate both theoretical and practical aspects of instructional leadership. Educational institutions that give training for teachers and educational leaders will find this research to be relevant. The educational leaders who participate in this program will have the opportunity to get a more in-depth understanding of how to put the concepts of instructional leadership into practice in actual school settings.

Additionally, the findings provide school administrators and policymakers with actionable ideas to integrate instructional leadership strategies into their respective school operations. This may result in the development of a robust leadership style at the

national level, which will support high-quality instruction and improve the educational experience for students at all levels. It is possible that this will be the case.

The findings of the study are particularly relevant to policymakers in Cambodia and other contexts that are analogous, with the goal of improving school leadership and nurturing a positive school atmosphere. This final point holds significant importance. The findings of this research will contribute to the improvement of teacher attitudes, teaching quality, and eventually, the outcomes of student learning. The enhancement of principals' leadership capacities will accomplish this.

1.6 Scope and Limitations of the Study

There are a few caveats in this study that warrant consideration. Due to the fact that this study initially employed a survey methodology, it is possible that the researcher and respondents did not discuss any concerns regarding the collecting of data. As a result, the researcher recommends performing additional study in this area and increasing the number of times that we communicate with respondents. Second, although the sample size of this study was 619 participants, it was nevertheless determined to be significant small with only 12 schools. Therefore, we recommend that future studies consider a larger sample size. Third, there might be bias as participants might be informed that the surveys are for research purpose rather than for administrative reasons, so they may offer socially desirable responses, skewing the data, and less honest compared to those of administrative purposes.

Korsgaard, Schweger, and Sapienza (2004) also informed the people who filled out the surveys that the purpose of them was research, which may not have led to as much self-improvement as collecting data for administrative reasons. Fourth, there is a possibility that some members of the teaching staff have preconceived views and expectations regarding the manner in which their principal ought to lead. This could cause them to evaluate their principal's leadership in a negative manner in an effort to exact revenge and blacklist their principal. Fifth, some respondents may simply provide their answers to the questions in order to turn in the instruments rather than providing truthful thoughts.

Additionally, some educators may have provided a higher commitment rating in an attempt to gain favor with their principal and themselves. All of these undesirable actions could distort the validity and reliability of the instrument. Furthermore, some expressed hesitation to complete the questionnaire out of concern that their principal

would review and note their responses, which would have an impact on their yearly performance report. Additionally, diverse cultural and international contexts may limit the generalizability of the results. Because the values of the participants in this study may not exactly represent those of other countries, it is uncertain whether the findings will have the same implications for teachers in diverse cultural environments. To fully comprehend, many of the constructs addressed in the study, comparative studies across cultures and schools in various divisions or areas are required.

1.7 Conceptual Framework

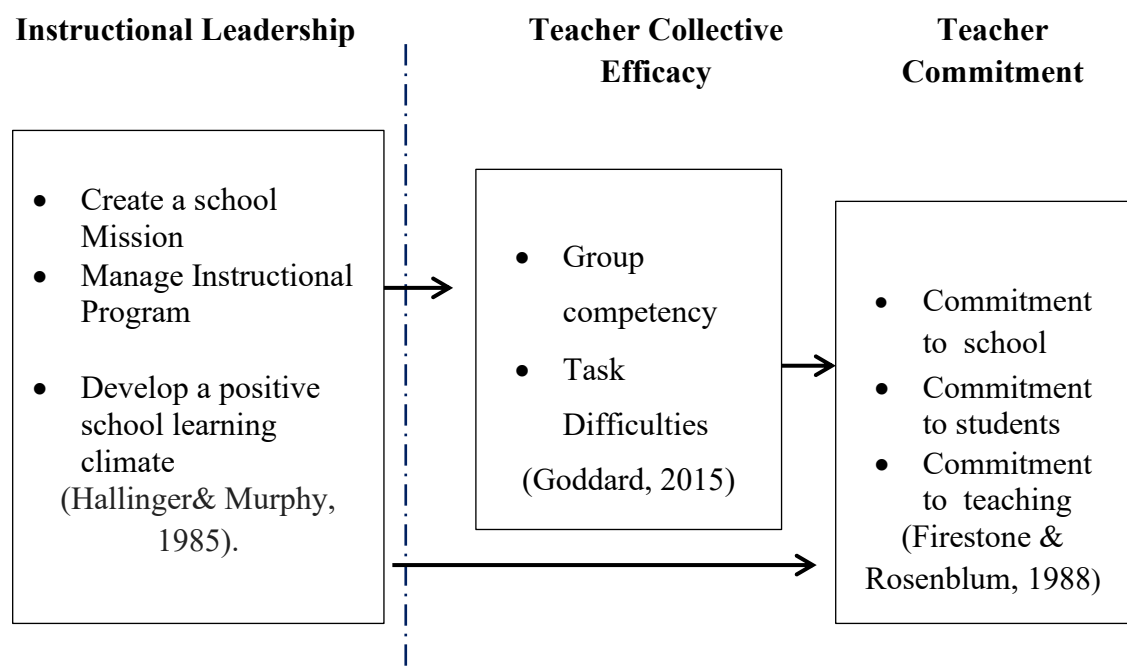


Figure1.1: Conceptual Framework

The conceptual framework of this present study is grounded on both empirical studies and some relevant theoretical perspectives. The researcher attempted to review previous studies that investigated two-variable relationships among the three key variables such as (1) the relationship between instructional leadership and teacher collective efficacy; (2) the link between instructional leadership and teacher commitment; and (3) the relationship between collective efficacy and teacher commitment. Based on these findings, the current study combines all the three constructs into a unified conceptual framework, investigating their relationships through advanced data analysis methods.

The scientific evidences of previous studies have been found to support the

conceptual framework of the current study. First, the interaction between instructional leadership actions and leader self-efficacy beliefs shaped teacher commitment and collective efficacy (Hallinger et al., 2018). Second, according to several studies (Calik et al., 2012; Cansoy & Parlar, 2018; Goddard et al., 2015; Goddard et al., 2021; Qadach, 2020), claimed that instructional leadership significantly increased collective teacher efficacy. Third, research suggests that instructional leadership positively impacts organizational commitment (Sarıkaya & Erdogan, 2016; Sugandi, 2021). Furthermore, research indicates that instructional leadership enhances teachers' commitment to their jobs (Ail et al., 2015; Tatlah et al., 2019). Fourth, the results showed a strong correlation between collective teacher efficacy and teacher commitment to school mission, professional community, and community partnership (Ross & Gray, 2006). Collective teacher efficacy positively affects school commitment (Yurt, 2022). Collective teacher efficacy and overall teacher effectiveness have a significant impact on educators' commitment to their pupils (Lee et al., 2011). A small number of studies, meanwhile, look into how instructional leadership simultaneously impacts both teachers' commitment and collective efficacy. In addition to this, most of these studies employ small sample sizes and diverse data analysis techniques, primarily in elementary school settings. Indeed, those studies (Al-Mahdy et al., 2018; Cansoy et al., 2022; Hallinger et al., 2018; Hosseingholizadeh et al., 2023; Thien et al., 2021) recommend conducting more research with a larger sample. Based on the gaps found above, the new concepts related to effects of school directors' instructional leadership on teacher commitment mediated by collective efficacy is framed for the current study.

The proposed conceptual framework of the current study is supported by Social Cognitive Theory and the Path-goal Theory. The Social Cognitive Theory, which maintains that people create their actions, values, and norms by observing others, environmental conditions, and self-efficacy (Bandura, 1986). The role of school directors who employ instructional leadership style is to shape school environment that may have impacts on teachers' behaviors, performance, culture, collective efficacy and commitment, which align with the principals of social cognitive theory. The path-goal theory also emphasizes the relationship between officially designated superiors and subordinates in their daily operations. It specifically examines how formally designated superiors influence subordinators' commitment and self-efficacy (House, 1996). It can be understood that the path-goal theory as a process where leaders select specific behaviors that suit their workforce and work environment, inspiring their subordinates

to achieve predetermined goals (Evan, 1970). Effective instructional leadership significantly raises teacher engagement by creating a climate that supports professional development and setting clear goals (Robinson, Hohepa, & Lloyd, 2009). Researchers have conducted studies on the relationship between instructional leadership and teacher commitment (Dou et al., 2017; Cansoy et al., 2020; Matsko, 2019; Hosseingholizadeh et al., 2020; Hallenger, 2018). In conclusion, the conceptual framework of the current study visually represent the relationship officially appointed superiors (denoted by school director's instructional leadership, the independent variable) and subordinates' daily behaviors (denoted by teacher collective efficacy and commitment, dependent variables in the current study). Path-goal theory thus serves as the theoretical explanation investigated correlational research design.

In summary, the conceptual framework of this research is proposed that school principals' instructional leadership as an independent variable influences teacher commitment (dependent variable) through teacher collective efficacy as a mediating variable. The conceptual framework is built on the foundation of Social Cognitive Theory and Path-Goal Theory, which emphasize how directors' instructional leadership influences followers' commitment and motivation. This theoretical perspectives support correlational design of this current study and the application of advanced data analysis methods such as structural equation modeling.

1.8 Operational Definitions

Collective Teacher Efficacy is the average teacher's opinion of the faculty's ability to positively impact student progress (Goddard, 1998).

Task difficulties refers to a range of factors, including student talents and motivations, the accessibility of educational resources, the existence of community resources and limits, and the suitability of the physical facilities inside the school (Goddard et al., 2000).

Group competencies refer to the faculty's training, experience, techniques, and teaching skills. Positive faculty views in the success of the students in their school may also be considered in assessments of teaching competence (Goddard et al., 2000).

A teacher's commitment to students is conceived as their involvement in the learning process (Thien & Razak, 2014).

Teacher commitment to teaching refers to teachers' willingness to put in extra effort to teach effectively, their increased enthusiasm for the subject matter, and their

willingness to spend extra time with students, which is defined as a psychological bond between them and their skills (Tyree, 1996).

Teacher commitment to the school is defined as the instructor's belief in and acceptance of the school's goals and values as well as their attempts to realize these goals and values and maintain their strong desire to be a part of the school community (Thien & Razak, 2014).

Instructional leadership refers to school directors' leadership practices determined by instructional leadership scholars including school mission (goals), instructional program management, and positive school learning climate development (collaborative structure, and school environment) (Hallinger & Murphy, 1985; Leithwood, 2012).

To avoid plagiarism and for paraphrasing purposes, this study adopted the terms 'teacher', 'director', and commitment' in place of 'instructor', 'principal' and 'dedication' respectively.

In summary, this chapter aims to present an overview of the upcoming research on the impact of instructional leadership (IL) by school principals on the commitment levels of teachers in secondary resource schools in Cambodia, specifically through collective efficacy. This chapter provides background of Cambodian educational system that has faced learning crisis, characterized by low learning achievement, which hinder both visions of Ministry of Education Youth and Sport as well as the economic development goals of Royal Government of Cambodia. Teacher commitment has been found low, which can be one of the causes of the learning crisis. This chapter also presents a detailed breakdown and explanation of the fundamental concepts of instructional leadership, collective efficacy, and teacher dedication. The instructional leadership and collective efficacy not only have positive effects on student learning achievement but also promote teacher commitment.

The fundamental issue with this study is that there have not been adequate studies completed on the relationship between instructional leadership, teacher collective efficacy, and teacher commitment. This represents the primary challenge facing this study. This shortcoming in the research is the fundamental reason for the problem. Moreover, no studies have explored the impact of the school's demographics on the factors under investigation. We also evaluate the study's value, emphasizing its potential to enhance teacher performance in Cambodia and provide insights to fortify school leadership tactics.

The conceptual framework draws on prior studies that connect instructional leadership with heightened teacher collective efficacy and commitment. This framework is also based on social cognitive and path-goal theories suggesting that effective instructional leadership enhances teacher commitment by boosting collective efficacy, fostering a supportive learning environment, and creating clear goals. The results will guide policy and enhance programs for training teachers and school leaders. This section appears to address operational definitions, the significance of the research, and its limitations.

CHAPTER 2

LITERATURE REVIEW

The purpose of this chapter is to examine the literature relevant to the current study regarding the influence of school principals' instructional leadership on teachers' collective efficacy and commitment. It addresses the background of secondary resource schools, leadership policies within the Cambodian education system, and crucial elements like previous research and pertinent theories associated with the conceptual framework. This chapter also includes a thorough examination of the theories backing this research. The definitions and components of these theories are discussed in detail, while the tools used to implement these theoretical components are addressed in the following chapter. In addition, it underscores prior research that investigates the relationship among the study variables and stresses empirical investigations that reveal research gaps prompting the creation of this current study.

2.1 Leadership in Cambodia

There are 6 standards for school director standards including (1) educational level and experiences, (2) capacity and attributes of school director, (3) critical thinking skills and innovation, (4) leadership and school administrative management, (5) Leadership on curriculum teaching and learning, (6) the connection between school and community (MoEYS, 2017). Each of the six standards is composed of its sub-components. Through close inspection, it is found that the combinations of some sub-components from the six standards such as school director are responsible for (1) school vision, mission, strategies, action plans and disseminating school development strategic plan to relevant stakeholders (2) leadership on school curriculum including internal and permanent school inspection, giving feedback (3) Leadership and school administrative management including personnel management, monitoring and evaluating school services, giving incentives (MoEYS, 2017). These school director standards and sub-components are likely comparable to the sub-component of instructional leadership, (1) school mission, (2) Manage instructional program, (3) develop positive school learning climate (Hallinger, 1985).

In order to strengthen governance and leadership at schools, the Primary Education Department (PED) will build the capacity of school principals through

training and ongoing mentoring. When school principals use these strategies, they will be able to lead and manage different parts of their schools, like planning, budgeting, teaching and learning, assessment, and more, while still following Model School Standards and taking care of school voluntary funds (MoEYS, 2023) and making sure the school is independent and responsible. Four strategies exist to bolster leadership and management in secondary education: (1) enhance the school-based management approach at the school level by (a) carrying out assessments of student learning, (b) creating a school improvement plan, and (c) setting up a school management committee; (2) to broaden the application of the new-generation school model by (a) applying the concept-based curriculum and student-centered approach, (b) enhancing the infrastructure of secondary resource schools; (3) to create a framework for quality assurance in secondary education by (a) establishing a mentoring and coaching system for DTMTs, (b) enhancing the capacity of DTMTs to improve the knowledge and skills of cluster mentors and school self-assessment, (c) providing training for school principals on school self-assessment, (d) preparing a report and a monitoring and evaluation (M & E) mechanism for teaching and learning that aligns with the new curriculum; (4) to reinforce the M&E system for school inspection through (a) creating a monitoring system for school operations and an effective timely national response system, (b) providing orientation sessions for new teachers at the school level, (c) overseeing and assessing the execution of inclusive education for secondary school students, and amending the training curriculum for educational inspectors (MoEYS, 2019).

2.2 The Alignment of Leadership in Cambodia with IL Theory

The instructional leadership style is regarded as one of the most suitable leadership styles applied within the Cambodian educational system. The approaches detailed in the Education Strategic Plan (ESP) (2019-2023) for bolstering leadership and management at the school level (MoEYS, 2019) are closely linked to key aspects of Instructional Leadership (IL). According to Hallinger & Murphy (1985), instructional leadership aims to enhance teaching and learning outcomes via leadership actions that are clear and focused, benefiting both teachers and students. Several elements of the ESP reflect these IL dimensions, particularly in developing school leadership capacity, enhancing instructional quality, and fostering continuous learning and improvement.

As an example, the approach of “building the capacity of school principals

through training and ongoing mentoring” (MoEYS, 2019) is in direct alignment with the IL aspect of professional development for school principals. Similar to how an instructional leader guides and supports teachers (Hallinger & Murphy, 1985), this strategy equips school directors with the necessary skills to promote effective instruction and cultivate a positive learning environment.

In the same way, the focus on school-based management, including carrying out standardized tests and developing school goals based on the test results (MoEYS, 2019), fits with the IL components of designing school curriculum and improving teaching methods. These strategies get school leaders involved in shaping the curriculum, assessment methods, and the overall quality of instruction (Hallinger & Murphy, 1985) by pushing for decisions based on data and a plan to improve school performance.

Additionally, the development of mentoring and coaching frameworks for teachers, as stated in the education strategic plan (MoEYS, 2019), aligns with the IL dimension of supervising and developing professionals. One of the fundamental duties of instructional leadership is to provide teachers with mentorship and professional development (Hallinger & Murphy, 1985). By emphasizing this area, the plan bolsters school directors’ roles in promoting instructional excellence.

Furthermore, the monitoring and evaluation (M&E) system for school operations and inclusive education (MoEYS, 2019) is a strategy that corresponds with the IL aspect of accountability for teaching and learning. School principals are able to ensure ongoing improvement of instructional practices by offering effective feedback mechanisms and utilizing data to evaluate and adjust teaching methods. This approach aligns closely with the evaluation systems found in successful instructional leadership frameworks (Hallinger & Murphy, 1985).

Therefore, the strategies detailed in the Education Strategic Plan are not only practical measures for improving school leadership and management, but they also align closely with the dimensions of Instructional Leadership, which emphasize professional development, support for teaching, data-driven decision-making, and continuous improvement. These overlapping priorities demonstrate the interconnectedness between school leadership strategies in Cambodia and instructional leadership style developed by Hallinger and Murphy (1985)., which support the present study focusing the effects of instructional leadership practices on teacher collective efficacy and teacher commitment in Cambodian context.

In this explanation, the researcher draws explicit connections between the

strategies outlined in the strategic plan and the key components of instructional leadership. The researcher demonstrates that the focus on school improvement plans or school goals, classroom monitoring and evaluation for teacher support, and data-driven decision-making reflects the core dimensions of IL, helping to ensure that the strategic initiatives will likely enhance instructional quality and leadership at the school level. Therefore, it is necessary and relevant to conduct a research on IL in order to improve leadership and management policy and action plans based on the scientific evidences.

2.3 Strengthening Leadership: Training Programs in Cambodia

Several key initiatives aimed at improving the quality of education and the professional development of educators have been the focus of leadership efforts. These initiatives encompass the endorsement of guidelines for pedagogical internships at the levels of higher education and bachelor's degrees, along with the creation of evaluation instruments aimed at measuring teachers' performance and ensuring alignment among effective teachers, principals, and schools. Moreover, principles, procedures, and methods for assessing teacher trainees based on academic performance have been developed (MoEYS, 2022).

As specified in Certificate No. 1779 issued on March 29, 2022, periodic professional development services aimed at management training programs in schools have been quality-accredited to guarantee ongoing improvement. A key emphasis has been placed on capacity development, training 84 leaders and principals (16 females) from pedagogical institutes and regional centers in the management of teacher training institutions. In addition, 84 leaders and principals took part in a professional development program in Japan, and 9 management team members from educational institutes received training in institutional management there (MoEYS, 2022).

Moreover, initiatives aimed at developing leadership skills have also targeted school principals. A total of 14 principals (3 female) from teacher training institutions have participated in training sessions focused on policy and management leadership as well as leadership in education. Finally, 28 school principals (9 women) from 5 selected primary schools in the Puok district of Siem Reap province received training in school management, contributing to the development of leadership at the grassroots level (MoEYS, 2022).

It is essential to connect the duty of education inspectors and school leadership as well as the ongoing enhancement of educational quality in Cambodia. Inspectors are

responsible for carrying out both thematic and regular inspections that assess different facets of school performance, including teaching methods, curriculum implementation, student learning achievement, and school management. Their responsible duties are to cooperate with school directors by offering principals, teachers, and relevant educational officials' timely feedback, allowing for corrective measures and enhancements to school practices. Education inspectors take comprehensive capacity-building courses or workshops, including specialized training in analysis, report writing, and electronic school assessments, to improve their effectiveness. This training equips inspectors to provide enhanced support to school leadership by ensuring that schools adhere to quality standards and align with the education assessment framework. Moreover, making certain that inspection tools align with child-friendly school guidelines and school management standards guarantees that inspectors collaborate closely with school leaders to foster environments conducive to student learning and development (MoEYS, 2022).

It should be emphasized that although education inspectors undergo thorough and specialized training, the school directors in Cambodia have few opportunities for training in relation to school management and leadership. Moreover, the training programs for school directors are not available throughout the country. Moreover, although both school directors and education inspectors benefit from those training programs, there is an absence of specialized courses on leadership styles that can enhance the development of effective school leadership. The current findings will suggest that leadership skills for school directors are essential and should be integrated into comprehensive training programs to better equip them for their roles and responsibilities in improving school success.

2.4. Concepts of Leadership

According to Silva (2016), "Leadership" is a hard-defined word. The term is defined variously from one to another. About 221 definitions of leadership included in 587 scholarly literatures have been found (Burns, 1996) while A total of 1,343 distinct references to the leadership characteristics that define the categories outlined in the leadership perspective framework were found in the 103 essays (Fairholm, 2004), therefore, it can be assumed that there is no clear consensus about what leadership is, and the search for better or latest definitions keeps going on. Stogdill (1950) defines leadership as the process of influencing activities of an organized group in its task of

goal setting, and goal achievement should be reexamined.

MoEYS (2009) defines “Leadership” as the ability to lead or motivate the followers, particularly a group or unit, to work together and strive to reach their common goals. In other words, a leader is a person who is recognized by each member in the group or unit to lead and achieve his/her goals.

Leadership is the management styles that impact the group or individuals towards the goal. The term has been used for different fields—politics, business, academics, or social network. The leader of an organization plays important roles in enhancing the followers’ job performance (McColl-Kennedy & Anderson, 2002).

2.5 Theoretical Foundations of the Connection between TC, TCE, and IL

According to Kerlinger and Lee (2000), a theory is a collection of connected constructs (concepts), definitions, and propositions that offer a systematic phenomenon by defining relationships between variables in an effort to both explain and predict the phenomenon. The theoretical framework, drawing from existing literature, provides a comprehensive, theory-based basis for understanding and evaluating the research problem (Cresswell, 2014). In the current study, there are three concepts: teacher commitment, teacher collective efficacy, and instructional leadership. Instructional management or instructional leadership refers to the activities and tactics of principals that aim to enhance the school’s instructional structure and learning climate to improve student learning outcomes (Bossert et al., 1982). Perceived collective efficacy refers to a group’s shared conviction in its collective ability to plan and carry out the action, which are required to achieve specific goals (Bandura, 1997). The alternative definition of commitment includes personal involvement or a behavioral desire to exert effort, according to Mowday et al. (1979). It also describes a mental process that assesses the benefits and drawbacks of investing in a significant objective (Becker, 1960; Hrebiniak & Alutto, 1972). Kanter (1968) defines commitment as the primary function that interconnects the personality and social system. Teacher commitment is defined by Coladarci (1992) as a measure of psychological attachment to the teaching profession. According to Park (2005), a teacher’s commitment to their students is characterized by their level of dedication and responsibility for their education and affective domains.

A few theories including, path-goal theory, instructional leadership theory, social cognitive theory, and commitment theory, are pertinent to the investigation at hand. First, the path-goal theory, a dyadic theory of supervision, reflects the prevailing

paradigm in the study of leadership. It deals with the working relationship between officially designated superiors and subordinates on a daily basis. Leaders who demonstrate achievement-oriented conduct inspire followers to strive for higher performance standards and boost their confidence in achieving challenging goals (House, 1996).

Second, according to Hallinger and Murphy (1985), the Instructional Leadership Model places special emphasis on three areas: administering the instructional program, establishing the school mission, vision as well as goals, and creating a supportive learning environment. Vision and goals as well as other dimensions of instructional leadership inspire teachers to make their efforts toward attainment of collective school objectives (Kantabutra, 2010; Thompson, 1968; Ylimaki, 2006) and then teachers may come to realize new aspirations and achieve higher levels of performance (Sashkin, 1988; Seeley, 1992).

Third, the Social Cognitive Theory investigates how people pick up new behaviors through observation, how they view their own skills, and how their environment such as leadership style of school principal influences their behavior and personal characteristics. This hypothesis consists of the following five parts: (1) Observational learning: Through seeing others, people form their own standards, values, and actions; (2) Reciprocal determinism emphasizes the dynamic and reciprocal relationship between an individual's behavior, environmental factors, and cognitive and emotional processes; (3) Belief in one's own ability to achieve in particular circumstances is known as self-efficacy; (4) Behavioral capabilities are the abilities and knowledge required to carry out a behavior; and (5) Reinforcement and Punishment (Bandura, 1986).

Fourth, the organizational commitment—the study of how employees' devotion to their organization influences their conduct and productivity—is the emphasis of the commitment theory. This notion highlights the psychological attachment that workers have to their company. The commitment model consists of three parts: normalizing, continuation, and affective commitment. The term affective commitment describes a worker's sentimental connection and engagement with their company. Workers who exhibit a high level of affective commitment do so voluntarily. Continuance commitment is an understanding of the expenses involved in quitting the company. Due to the perceived consequences of quitting, employees with strong continuation commitments stay because they must. Normative commitment describes the sense of

duty to stick with the company. High normative commitment: employees stick around because they think they should (Meyer & Allen, 1991).

One of the key leadership theories underpinning the present research on how instructional leadership (IL) influence teacher collective efficacy (TCE) and teacher commitment is the path-goal theory, which examines the effects that formally designed leaders have on the job satisfaction and motivation of their subordinates (House, 1965). Guskey's (2002) research reveals that professional development influences teachers' efficacy and behavior, thereby indirectly contributing to collective efficacy. Hattie and Timperley (2007) examine the impact of feedback on both teacher effectiveness and group efficacy. Bandura (1997) presents fundamental ideas on self-efficacy, which can expand to collective efficacy and its effect on teacher dedication. Leithwood and Jantzi (2000) investigate the relationship between teachers' commitment and transformative leadership, which is a facet of instructional leadership. In order to increase group efficacy and commitment, instructional leadership techniques like professional development and feedback are essential. These behaviors contribute to the development of a more committed and productive team, which in turn improves student results by enhancing teachers' abilities, self-assurance, and sense of support.

2.6 Historical Development and Key Components of IL

Because of its relationship to and track record of improving student and school outcomes, instructional leadership is one of the most well-known and durable leadership styles (Hallinger & Heck, 1996; Robinson et al., 2008). The USA is the primary source of the vast and substantial body of information regarding instructional leadership (Hallinger, 2011; Hallinger & Murphy, 1985). Over several decades, a group of international researchers developed models of instructional leadership practice that are grounded in empirical research (Hallinger, 2011; Hallinger & Murphy, 1985; Hallinger et al., 2015; Leithwood et al., 2010). The primary focus of instructional leadership is on the professional development of teachers, which has an indirect effect on the academic accomplishment of students (Leithwood & Jantzi, 1999).

The crucial dimensions of instructional leadership is the principals' direct involvement in teaching and learning progress, which has long been recognized as a foundational component of the model (Bossert et al., 1982; Hallinger & Heck, 1996a; Hallinger & Murphy, 1985). However, transformational leadership emphasizes the leader's role in inspiring others toward a shared vision of change and in encouraging

members to develop skills that lead to higher levels of performance (Bass, 1985). Notably, Hallinger (2003), indicated that transformational leadership does not advocate for principals to actively participate in teaching and learning. In fact, Hallinger and Murphy (1985) identified three core component of instructional leadership: defining the school mission, managing school curriculum, and creating a supportive learning environment.

2.6.1 Define the School Mission

In a seminal synthesis of research on the effects of school leadership in the 1990s, Hallinger and Heck (1996a) found that the most important way that school leaders influence learning is through their vision and goals. More recently, Robinson et al. (2008) confirmed this finding in a meta-analysis of the literature on the effects of school leadership. In fact, they ranked vision and goals as the second most important way that principals may enhance student learning in the classroom. The term “vision” describes an overarching goal that the school hopes to achieve (e.g., educating the complete kid). On the other hand, goals are the particular objectives that must be met in order to reach that vision (Hallinger & Heck, 2002).

According to the instructional leadership literature, goal-related constructs (such as vision, mission, and goals) are expected to have an academic focus (e.g., Hallinger & Heck 1996a; Murphy 1988, 2005; Robinson et al. 2008). There are two main ways that vision and goals are implemented (Hallinger & Heck 2002; Sun & Leithwood 2015). First, they motivate individuals to put in, or even give up, their best effort in order to accomplish a group objective (Kantabutra, 2010; Thompson, 1968; Ylimaki, 2006). Second, people may realize new goals and perform at greater levels by banding together in an effort to accomplish a difficult but worthwhile goal (Sashkin, 1988; Seeley, 1992). Setting goals makes it clearer what we will and won’t do (Sun & Leithwood 2015; Kantabutra, 2010; Saphier & King, 1985).

Therefore, two functions comprise the dimension that defines the school mission: framing the school’s goals and communicating those goals. These responsibilities center on the principal’s collaboration with staff to guarantee, that the school’s mission can be both clear and student-centered (Andrews & Soder, 1987; Bamburg & Andrews, 1990; Leithwood et al., 2008; Robinson et al., 2008). This dimension suggests that the principal is in charge of making sure the school has a mission and spreading awareness of it among the personnel, even though it does not

presuppose that the principal defines the mission alone. Establishing a learner-centered school begins with this component (Hallinger & Heck, 2002; Knapp et al., 2009).

2.6.1.1 Frame the School Goals

Generally speaking instructionally successful schools have a mission statement or set of objectives that are specific to student achievement. The emphasis lies on a limited number of goals that can effectively allocate staff time and other school resources. It looks like a small number of well-coordinated goals, each with a reasonable scope, are ideal. The goals should include data on previous and present student achievement, as well as staff responsibilities for achieving the goals. While developing the school's objectives, the opinions of staff and parents appeared to be significant. Bossert et al. (1982), Clark (1980), Davies et al. (2005), Hallinger and Heck (2002), and Robinson et al. (2008) recommend stating performance objectives in quantifiable terms.

This paradigm argues that there is no one ideal way for a principal to define goals. The principal or staff could work together to set the goals. In the end, the faculty should support the school's definite academic goals and integrate them into their regular work. This image of goal-oriented, academically focused schools contrasts with the prevailing scenario, which portrays schools as pursuing a range of nebulous, ill-defined, and occasionally competing academic and non-academic aims (Hallinger, 2015).

2.6.1.2 Communicate the School Goals

This role deals with how the principal informs teachers, parents, students, and others about the school's main objectives. Throughout the school year, principals can make sure that staff members understand the significance of the school's goals by regularly reviewing and discussing them, particularly when it comes to decisions about curriculum, instruction, and funding. The main objective of the school can be communicated through both formal and informal channels, such as goal statements, staff bulletins, articles in the principal or site council newsletter, the school handbook, assemblies, parent conferences, teacher conferences, curricular meetings, and other staff discussions (Brookover et al., 1982; Edmonds, 1979; Hallinger et al., 1996; Hallinger & Murphy, 1986; Heck, 2000).

2.6.2 Manage the Instructional Program

The second dimension, known as managing the instructional program, coordinates and controls curriculum and instruction. This dimension includes three leadership (or perhaps more appropriately, management) functions: overseeing and

assessing instruction, planning the curriculum, and tracking students' progress. This dimension's main emphasis is the principal's function in "managing the technical core" of the school (Hallinger 2003; Hallinger & Heck 1998; Marks & Printy 2003; Robinson et al. 2008; Weick, 1982). It is evident in larger schools that other individuals, such as head technical teachers, are more involved in overseeing and refining the educational program than the principal. However, even in cases where day-to-day responsibilities are heavily outsourced to others, this approach presumes that the principal has a major leadership role in coordinating and overseeing the school's academic program (Hallinger et al., 2015)

To effectively implement this dimension, the principal and other leaders must actively engage in promoting, overseeing, and monitoring teaching and learning within the school. Even though time restrictions may limit the principal's personal efforts in this domain, it is crucial to model and organize the entire leadership team to ensure successful implementation (e.g., Marshall 1996). The work of Hallinger and Heck (2011a), Heck and Hallinger (2014), Hayes et al. (2004), and Kleine-Kracht (1993) supports this point. Undoubtedly, these responsibilities necessitate the principal's commitment to the school's advancement and their knowledge of both teaching and learning. The principal must go "hip-deep" in the curriculum of the school in order to address this dimension (Bossert et al., 1982; Cuban, 1984; Edmonds, 1979; Hallinger & Murphy, 1986; Marshall, 2004).

2.6.2.1 Supervise and Evaluate Instruction

One of the principal's main responsibilities is to ensure the implementation of school goals in the classroom. This entails evaluating in-class instruction and matching teachers' goals with the school's goals. It also entails providing instructional assistance to teachers and having the principal and other instructional support personnel make official and informal classroom visits to observe instruction (Attinello et al., 2006; Goldring et al., 2009; Hallinger et al., 1996; Liu & Zhao, 2013; Robinson et al., 2008).

2.6.2.2 Coordinate Curriculum

The high level of curriculum synchronization is one feature of instructionally effective schools that stands out. The subjects taught in the classroom and the school's accomplishment assessments directly link to the curriculum goals of the school. Furthermore, there seems to be a satisfactory amount of consistency in the course series utilized at all grade levels. More interaction between teachers within and across grade levels on instructional and/or curricular issues is often supportive of this aspect of

curricular coordination (Alexander and Cook, 1982; Cardno and Collett, 2004; Cohen and Miller, 1980; Cooley and Leinhardt, 1980; Ho, 2010; Robinson et al., 2008).

2.6.2.3 Monitor Student Progress

Instructionally effective schools place a strong emphasis on both standardized and criterion-referenced test. The school uses the tests to diagnose programmatic and student weaknesses, evaluate the results of changes in its instructional program, and assist in creating classroom assignments. The principal plays a key role in this area in several ways. He or she can provide teachers with test results in a timely and useful fashion, discuss test results with the staff as a whole, with grade level staff and individual teachers, and provide interpretive analyses for teachers detailing the relevant test data in a concise form (Anderson, Leithwood, & Strauss 2010; Edmonds 1979; Heck 2000).

2.6.3 Develop a Positive School Learning Climate

Principals also seem to have an impact on learning by “enabling” teachers to do their duties more effectively and efficiently. This is known as “shaping academic structures and processes”, (Hallinger & Heck, 1998). Leithwood et al. (2010) as well as Leithwood and Sun (2012) later referred to this as “designing the organization”. Both titles communicate the idea that leaders are vital contributors who keep work structures and procedures organized. Research has demonstrated that work structures, such as grade-level assignments and instructional teams, significantly influence teacher engagement and interaction patterns (Oakes, 1989; Rosenholtz, 1985). These institutions have the power to influence the school’s expectations, norms, and adaptability, as well as its culture (Sashkin 1988; Saphier & King 1985). Principals have a significant influence on the structure of these systems because of their formal standing in the hierarchy (Hallinger, 2015).

Therefore, the third dimension, “Develops a Positive School Learning Climate”, encompasses safeguarding instructional time, promoting professional development, ensuring high visibility, providing incentives to teachers, and offering incentives for learning. The second dimension is more focused and narrowly defined than the first one, and it shares similarities with dimensions found in transformational leadership frameworks (Hallinger, 2003; Leithwood et al., 2006). It is in line with the theory that prosperous educational institutions establish a culture of continual learning and development, together with high standards and expectations, in order to generate an “academic press”.

The cultures of continuous improvement that result from instructionally effective schools are characterized by reward systems that are in line with goals and procedures (Glasman 1984; Hallinger et al., 1996; Heck & Hallinger, 2011b; Heck & Hallinger, 2011; Walker, 2012). Lastly, according to Hallinger (2003), Hallinger and Murphy (1985), Leithwood et al. (2008), Leithwood and Sun (2012), as well as Marks and Printy (2003), the principal needs to set an example of beliefs and practices that promote teaching and learning's ongoing progress.

2.6.3.1 Protect Instructional Time

The work of Jane Stallings and others on allotted learning time first highlighted the significance of giving teachers blocks of uninterrupted work time. Announcements, tardy pupils, and office demands can often stop teachers from fully utilizing improved classroom management and instructional skills. By creating and enforcing school-wide policies regarding disruptions to classroom instruction, the administrator can exert control over this area (Bossert et al. 1982).

2.6.3.2 Maintain High Visibility

Teachers and pupils can learn about the principal's priorities from the circumstances in which they observe him or her. Even though much of the remaining time is out of their control, the principal can set priorities. Being visible on campus and in classrooms improves communication between the principal and both teachers and students. According to Hallinger and Murphy (2012), Leithwood and Jantzi (2005), Leithwood et al. (2008), Leithwood and Sun (2012), as well as Walker (2012), this may have a beneficial impact on classroom behavior and student conduct.

2.6.3.3 Provide Incentive for Teachers

The overall goal of this role is to align objectives, results, and incentives in a better-integrated human resource management system (Milanowski et al. 2005; Odden and Wallace 2008). There aren't many financial incentives that principals can offer teachers. The tenure structure and single compensation schedule limit principals' ability to employ financial incentives to inspire teachers. However, the effectiveness of money as an incentive in schools may not exceed that of praise and recognition. This suggests that the principal should fully utilize both formal and informal methods to motivate teachers and foster a school culture based on mutual respect, trust, and success (Anderson 1982; Leithwood & Jantzi, 2005; Leithwood & Sun 2012; Saphier & King 1985).

2.6.3.4 Promote Professional Development

The meta-analysis by Robinson et al. (2008) provides further insight into this matter. According to their findings, the biggest impact on students' learning outcomes came from the principal's encouragement of and involvement in staff professional development. Teachers can get support from the principal in a number of ways as they work to enhance instruction and learning. He/she can plan, supply, or alert educators to pertinent staff development opportunities. Heck and Hallinger (2011), Kruger et al. (2007), Robinson et al. (2008), and Hallinger and Heck (2011b) assert that the principal can also facilitate staff development that aligns with the school's objectives.

2.6.3.5 Provide Incentive for Learning

The School Learning Climate section concludes with a discussion of the principal's final role: providing learning incentives. It is feasible to establish a learning environment in schools where pupils place a high priority on academic success. Creating a successful environment for children means giving them numerous, obvious chances to receive praise, and rewards for their progress and accomplishments in the classroom. Both inside the classroom and in front of the entire school, students should have the opportunity to receive acknowledgement for their accomplishments, without the need for elaborate or costly awards (Hallinger et al. 1983; Lasley & Wayson 1982; McDill et al. 1969). The aforementioned aspects of instructional leadership outline the principal's and the school's leadership team's range of duties in relation to directing instruction. Nonetheless, it is also helpful to situate these duties within the larger framework of how leadership functions in educational institutions (Hallinger et al., 2015).

In brief, the researcher wants to concentrate on school leadership because recent meta-analytic study evaluations show strong evidence of a favorable relationship between student achievement and principal leadership (Robinson et al. 2008; Waters et al. 2003). However, there is a significant difference between this study and most leadership-achievement studies. In particular, research on how school leadership affects academic performance frequently neglects to examine how excellent leadership increases teachers' collective efficacy. In order to solve this issue, the present researcher looks at how school instructional leadership influences teacher collective efficacy and commitment.

This study examines three dimensions as independent variables: defining school missions (framing schools' goals), managing the instructional program (supervising and

evaluating instruction, coordinating curriculum), and creating a positive school learning climate (protecting instructional time, providing teacher incentives, and promoting professional development). Louis et al. (2010) used these dimensions to cover the instructional leadership measure.

2.7 Summarized Definitions of Instructional Leadership

The USA's Hallinger and Murphy (1985) created the most widely used notion of PIL. This model suggested three components: establishing a school mission, overseeing the curriculum, and cultivating a supportive learning environment (Hallinger & Murphy, 1985; Hallinger & Wang, 2015). The term "creates a school mission" refers to the principal's duty to clearly define and convey a learning direction and to garner support for implementing the mission in the school's daily operations. The term "manages the instructional program" describes the leadership activities that create, plan, and oversee the caliber of instruction and learning. The phrase "develops a positive school learning climate" refers to the part principals play in fostering an environment that encourages and supports educators and learners to participate in positive school activities. More than 500 investigations have used this framework and its related survey tool, the Principal Instructional Management Rating Scale (PIMRS; Hallinger & Wang, 2015). Interestingly, the factors in this study have a significant deal of empirical support from these PIMRS studies (see Hallinger & Wang, 2015).

The focus of instructional leadership is on the professional development of teachers, which has an indirect effect on students' academic performance (Leithwood & Jantzi, 1999). The principal instructional management rating scale (PIMRS), a popular conceptual framework, was created by Hallinger and Murphy (1985). It has three dimensions: (a) establishing the school's objective; (b) overseeing the instructional program; and (c) creating a supportive learning environment.

The dimension of creating the school mission included two job functions: (a) formulating school goals and (b) conveying school goals (Hallinger & Murphy, 1985). The degree to which principals pinpoint the areas that the school needs to improve and create performance targets for those areas is known as framing school goals. The function of communicating school goals refers to the principal's methods of conveying the significance of the school's objectives to staff, parents, and students. Working closely with teachers in curricular and instruction-related areas is part of managing the instructional program dimension (Hallinger & Murphy, 1985). This dimension

encompasses three job functions: curriculum coordination, student progress tracking, and supervision and evaluation of instruction. The degree to which principals encourage activities that offer teachers instructional support, observe classroom instruction through unofficial visits, and match classroom practices with school objectives is known as “supervising and evaluating instruction” (Hallinger & Heck, 1998; Hallinger & Murphy, 1985; Hallinger & Lu, 2014). Curriculum coordination refers to the activities principals implement that enable staff to collaborate on aligning the curriculum with standards and achievement exams. The degree to which principals use test results to define objectives, evaluate the curriculum, review instruction, and track students’ progress toward school goals is known as the job function of monitoring student progress (Hallinger & Murphy, 1985).

The third dimension of PIMRS encompasses five job functions: (a) protecting instructional time; (b) promoting professional development; (c) maintaining high visibility; (d) providing incentives to teachers; and (e) providing learning incentives (Hallinger & Murphy, 1985). These five job functions collectively refer to the principals’ implementation of “clear, explicit standards embodying what the school expects from students; through the careful use of school time; and through the selection and implementation of high-quality staff development programs” in order to foster a positive learning environment in the school (Hallinger & Murphy, 2005, p. 223).

2.8 Dimensions and Definitions of IL in Different Contexts

According to Hallinger (1982) and Hallinger (2011), the original PIMRS comprised 72 items divided into 10 subscales, which included defining school goals, communicating school goals, coordinating curriculum, supervising and evaluating instruction, monitoring student progress, safeguarding instructional time, offering incentives to teachers, offering incentives for learning, encouraging professional development, and maintaining high visibility. Later, Hallinger (1990) revised the instrument to include 50 items and 10 subscales.

The research and development process led to the trimming of the PIMRS Teacher Form from 50 elements to 22. The resulting PIMRS Teacher Short Form can generate scores for three aspects of instructional leadership in addition to a full-scale score: establishes a positive school learning environment, managing the instructional program, and defines the school’s mission. According to the results, the PIMRS Teacher Short Form consistently generates data that meets high standards of reliability (i.e.,

above 0.90) for both the three dimensions and the full scale, demonstrating that the use of a Generalizability Theory (Gen Theory) test results in more valid reliability assessments (Cronbach et al., 1972; Kane et al., 1976). In the PIMRS Teacher Short Form, the correlation between creating a school mission and managing an instructional program was 0.90, the correlation between creating a school mission and developing a positive school learning climate was 0.81, and the correlation between managing an instructional program and developing a positive school learning climate was 0.89 (Hallinger et al., 2015)

One of the more frequently explored conceptual frameworks for school principal leadership is the instructional leadership model. There are many different definitions of instructional leadership, and in the last few decades, the concept has become more accurate due to the description and classification of leaders' actions and behaviors in this field (Lima, 2011). For instance, two key factors linked to the development of principled effective leadership in the educational field were recognized by Blase and Blase (2000) who claimed two key factors: (1) communication with the teaching staff to encourage introspection, and (2) advancement of the professional growth of teachers.

2.8.1 Dimensions and Definitions of IL in UK

Building vision and defining directions, understanding and developing people, redesigning the organization, as well as managing the teaching and learning program are the four categories of leadership activities that Leithwood et al. (2008) found to impact students' learning. The latter group includes particular leadership strategies related to curriculum coordination, student progress monitoring, instructor supervision and evaluation, and safeguarding classroom learning time. Day et al. (2010) conducted comprehensive impact research in the UK and identified eight essential components of effective school instructional leadership: (1) establishing the vision and values of the leaders in order to set goals, provide guidance, and foster trust; (2) changing the environment for teaching and learning; (3) restructuring school and redesigning leadership roles and duties; (4) improving the curriculum; (5) improving the caliber of teachers; (6) improving instruction and learning; (7) fostering cooperative relationships within the school community; and (8) fostering strong relationships outside of it. Numerous tools for assessing instructional leadership are available, according to the literature (Bolívar, 2015). The Principal Instructional Management Rating Scale (PIMRS), which is based on a conceptual framework created by Hallinger and Murphy (1985), is one of the more popular ones used globally.

2.8.2 Dimensions and Definitions of IL in China

According Standardization of Professional Practices for Mandatory Education, the school principal's proposal (Liu et al., 2017) expects principals to fulfill six professional responsibilities. These responsibilities include establishing the school development plan, fostering a school culture that is nurturing, engaging in curriculum and instruction, facilitating teacher development, optimizing internal organizational management, and adapting to external contexts.

The criteria reflect the experiences of Anglo-American nations such as the United States of America and the United Kingdom. The standards for Chinese principals, akin to the Interstate School Leaders Licensure Standards 2008, underscore the principal's role in instructional leadership and provide precise guidance on the knowledge and skills of instructional leadership. These standards include activities such as routinely observing lessons, evaluating teachers' teaching, and improving the teaching environments for both teachers and students (Liu et al., 2017).

The standards imply that principals need to go beyond their traditional duties as school managers and policy implementers and take on additional obligations in order to provide a better environment for student learning and to assist teacher development (Qian et al., 2017a; Walker and Qian, 2015). This is because the standards require principals to take on those responsibilities. Three domains further characterize instructional leadership: identifying the school's values and goals, directing teaching and curriculum programming, and developing the school as a professional learning community (Hopkins, 2003).

According to Li (2015), a Chinese model of instructional leadership should have six components: (1) establishing direction and purpose; (2) assessing and tracking instruction; (3) creating a rich learning environment; (4) curriculum alignment; (5) encouraging professional development; and (6) encouraging external communication to enhance learning. Upon closer inspection, it appears that Hallinger's model is comparable to five of the six dimensions. Similarly, Walker and Qian (2022) found that the modified model of IL in China composed of six dimensions and 17 sub-constructs was developed and the way the Chinese principals enacted the sub-constructs of IL is somewhat different from principal in the Western context.

2.9 Deleting MIP of PIMRS in Some Contexts

Some societies eliminated specific PIMRS scales related to curricular

coordination. Principals rarely interfere in classroom operations, despite the fact that the majority of them have teaching training and apply it to leadership roles (Rodrigues & Ávila de Lima, 2024). For instance, Antoniou and Lu (2018) found that some of the PIMRS's items were not relevant and appropriate for measuring instructional leadership in China. The MoE tightly regulates the curriculum, and principals have limited authority to implement modifications or enhancements, making several aspects of the principal's curriculum coordination inapplicable to this educational system. In a study of five Asian countries including China, Taiwan, Malaysia, Singapore, and Vietnam, Hallinger and Walker (2017) found that school directors typically have limited authority over curriculum development. Consequently, schools in these contexts often face challenges in fulfilling the instructional leadership responsibility of coordinating the curriculum, as outlined by Hallinger and Murphy (1985).

Participants offered several explanations for the apparent disappearance of the principal's role in overseeing the instructional program. First, they don't have enough time to frequently examine curriculum development or witness classroom instruction. Second, the principal of the school mentioned that teacher resistance made it difficult to execute these procedures. Teachers often found their presence unwelcome in the classroom, as it was typically considered their domain. Third, there is a perception that the school principal lacks curricular-area competence and doesn't actively oversee the curriculum. Lastly, meetings with individual instructors to discuss students' development were extremely difficult for the school principals, especially in large schools (Rodrigues & Ávila de Lima, 2024).

2.10 Teacher Commitment

The researchers refer to teachers' affective involvement with the school and its transformational efforts as teacher commitment (Geijsel et al., 2003; Hallinger & Lu, 2014; Ross & Gray, 2006). For these teacher attitudes to flourish in a school setting, research indicates that leadership is necessary (Geijsel et al., 2003; Leithwood & Louis, 2011; Leithwood et al., 2010; McGuigan & Hoy, 2006). Teacher commitment, according to Mowday et al. (1982), is the degree to which instructors identify with and participate in school administration. Since teachers take on increasingly central roles in the educational process, their need for greater responsibility, variety, and challenge in their work has grown. Therefore, emphasizing teacher commitment is essential (Zheng et al., 2020). Research finding has shown that teacher commitment is a key indicator of

both educational quality and teacher performance (Meyer et al., 2012). The concept of teacher commitment is multifaceted, reflecting teachers' strong connections to their profession, colleagues, students, professional communities, and schools (Chan et al., 2008; Firestone & Pennell, 1993; Riehl & Sipple, 1996). Thien and Razak (2014) identified four core dimensions of teacher commitment: (a) commitment to profession; (b) commitment to students; (c) commitment to teaching; and (d) commitment to school.

To clarify the nature of different psychological states, Allen (1997) identified three types of commitment: a) affective commitment, referring to an employee's emotional attachment, identification and involvement in the organization; (b) continuance commitment, which involves the employee's awareness of the costs associated with leaving the organization; and (c) normative commitment, which reflect a sense of obligation to stay with the organization.

In contrast to an uncommitted teacher, Reyes (1990) noted the beneficial traits of a highly devoted teacher. A dedicated teacher is also more likely to: (a) be less tardy, work harder, and be less likely to leave the workplace; (b) devote more time to extracurricular activities in order to accomplish the goals of the school and school system; (c) perform better; (d) influence student achievement; (e) believe in and act upon the goals of the schools and system; (f) exert efforts beyond personal interest; and (g) intend to remain a member of the school system, according to Reyes' (1990) study linking teacher commitment to performance and productivity.

Teacher commitment is a multifaceted concept that can take many different forms, including dedication to the school, to student learning, to teaching, and to professionalism. Louis (1991) argued that the interconnectedness of these forms of commitment made their independent measurement challenging. It was beneficial to treat them as distinct entities because depending on the sort of commitment involved, teachers may have different opinions, attitudes, and behaviors (Singh and Billingsley 1998).

2.10.1 Commitment to School

The definition of teacher commitment to school expects highly dedicated teachers to support the school's objectives, exceed expectations, and remain employed by the company (Abd Razak, 2010). Compared to other aspects of teacher commitment, teacher commitment to school has been the subject of more thorough definitions, assessments, and studies (Reichers 1985; Yousef 2000). Many scholars have examined

the nature and impact of teacher commitment to school (e.g., John & Taylor 1999; Kushman 1992; Somech & Bogler 2002). Compared to high school instructors, elementary school teachers exhibit noticeably higher levels of organizational commitment, according to these writers. Teachers who are highly committed to their school strive to meet school objectives, exceed expectations, and remain loyal to the company. This study defines teacher commitment to school as teachers' belief in and acceptance of the school's values and aims, as well as their efforts to make these values and goals a reality and maintain their strong desire to be a part of the school.

2.10.2 Commitment to Students

Commitment to pupils is based on the notion of strong teacher efficacy and expectations, according to Kushman (1992). Kushman (1992) asserts that schools demonstrate their dedication to students not only through their focus on students but also through their teaching methods and student accomplishment missions. Louis (1998) asserts that teachers who dedicate themselves to their pupils are more likely to assist them during personal crises and to recognize their growth and accomplishments more keenly. In addition to impacting student accomplishment, low levels of commitment to students may also lead to a decrease in empathy for students and a reduced capacity to tolerate dissatisfaction in the classroom (Firestone & Pennell 1993; Louis 1998). Rosenholtz (1989) posits that dedicated teachers are more inclined to engage positively with their students, enhance the significance of class activities, introduce innovative learning strategies, and modify the presentation of materials to enhance their relevance and arouse students' interest. Highly dedicated teachers were more likely to work on extracurricular activities that strengthened students' bonds with the school and its curriculum. After adjusting for the influence of socioeconomic position, Rosenholtz's (1989) study discovered a positive correlation between teacher dedication and student accomplishment. Consequently, teachers perceive their responsibilities towards students' learning involvement as an integral part of their commitment to them.

2.10.3 Commitment to Teaching

According to Warr et al. (1979), commitment to teaching is the extent to which an individual wishes to be involved in their work. According to Lodahl and Kejner (1965), commitment to teaching is the degree to which an individual psychologically identifies with and desires to participate in the teaching profession. Someone who is very committed to their job will likely feel better about it. Teachers conceptualize their commitment to teaching in an educational context as a psychological link between them

and their teaching, as evidenced by their willingness to put in extra effort to teach effectively, their increased enthusiasm for the subject, and their willingness to spend more time with students (Tyree 1996). Their level of dedication to the job actually influences the length of time a teacher stays in the teaching profession (Chapman 1983; Chapman & Lowther 1982; McCracken & Etuk 1986). In this context, they regard teachers' willingness to participate in teaching activities as a measure of their commitment to teaching

2.10.4 Different Types and Definitions of Teacher Commitment

There are numerous definitions, types, and items for assessing the commitment of teachers. Louis (1991) identified the four categories of teacher commitment—commitment to the teaching profession, commitment to student learning, and commitment to the school and commitment to the work of teaching—but proposed that they are interrelated and difficult to measure separately. Celep (2000) identified four characteristics of organizational commitment: dedication to profession, work group, teaching, and school. Additionally, he found a large positive association between school and teaching work, a high correlation between school and group work, and a significant correlation between devotion to work of teaching and devotion to teaching occupation. The scale that measures the different kinds of teacher dedication has some overlap.

Various authors have used attitude, conduct, motivation, and psychological states to describe the concept of professional commitment. For instance, some authors (Blau, 1989; Lee et al., 2000; Morrow & Wirth, 1989) defined professional commitment primarily through attitude, while others (Benkhoff, 1997; Price & Mueller, 1981) defined it primarily through behavior. Others also concentrated on both behavior and attitude (Aranya & Ferris, 1984; Aranya, Kushnir, & Valency). Bagraim (2003), Meyer et al. (1993), as well as Meyer and Herscovitch (2001) concentrated on psychological states, whereas London (1983), Noe et al. (1990), and Grzeda and Prince (1997) concentrated on motivation.

To sum up, there is disagreement about how the commitment construct is defined, and it has been defined and assessed in a various ways. The number of measuring items and dimensional structures of the construct have therefore been derived differently depending on the definition of the construct and the scale's creator. As a result, the current commitment scales exhibit both similarities and significant differences. Depending on how well the construct's description aligns with the user's purpose to assess it, this flaw in evaluating professional commitment could reduce

validity and have a weak relationship with the scale (Jaros, 2007; Blau, 2008; Xu & Bassham, 2010). Proposals suggest that teacher commitment plays a crucial role in the effectiveness of school education. (Firestone & Pennell, 1993; Park, 2005) It is associated with children's academic success, instructors' work performance, absenteeism, turnover, and attitude toward school.

2.10.5 Professional and Organizational Commitment: Absence of TCS

The literature and previous findings indicate that Meyer et al. (1993) first identified three factors—such as affective commitment, normative commitment, and continuation commitment—that adequately capture both organizational and professional commitment. The bi-factor CFA results, however, showed that there was almost no association between the two commitment factors and three sub-factors of teacher commitment, and the factor loadings for the three sub-scale factors did not match those between the organizational commitment and professional measurement scales. These findings suggest that there may be two different ways to approach the concept of commitment and that the two constructs—organizational commitment and professional commitment—were probably not the same. They think more research is necessary to elucidate this conjecture. Additionally, the scale in this study was created especially for use with teachers, while Meyer et al.'s organizational commitment scale was created for use with people in any field (Tansakul et al., 2015).

2.11 Relationship between IL and Learning Achievement

A wealth of empirical data spanning four decades has demonstrated the effects of principals' instructional leadership on teacher capacity and student achievement. Most studies recommend instructional leadership as a fundamental leadership skill for leaders to master (Day et al., 2011; Hallinger, 2011; Leithwood et al., 2017). Research demonstrates that instructional leadership outperforms transformational leadership and distributed leadership in enhancing teacher learning and student achievement (e.g., Day et al., 2011; Hallinger, 2011). According to a meta-analysis by Robinson et al. (2008), instructional leadership had a three- to four-times greater impact on student outcomes than transformational leadership. Principals in China are unfamiliar with instructional leadership, despite the fact that it has dominated the area of educational leadership in Western nations for almost 40 years (Walker et al., 2012; Walker & Qian, 2015). Instructional leadership is to enhance the quality of education for students in

grades K–12 by managing personnel well, resolving diversity-related issues, directing teacher development, and encouraging organizational learning (Brazier & Bauer, 2013).

2.12 Teacher Collective Efficacy

Collective teacher efficacy is the notion that we can make a positive difference in student learning, classroom issues, and adapting in changing situations (Hoy, 2008; Leithwood & Jantzi, 2008; Ross & Gray, 2006; Tschannen-Moran & Hoy, 2001). Organized groups attain goals through collaborative effort in most occupational tasks. Collective action requires more complicated, socially mediated ways to influence than self-direction. Tasks and complementary roles require interdependence. Teamwork needs interconnected tasks, talents, and roles. Coworkers' beliefs, motivation, and performance affect group members, who must coordinate their work with others'. Collective efficacy beliefs affect a system's mission and purpose, common commitment to its goals, the group's ability to collaborate and generate outcomes, and its resilience in the face of challenges (Bandura, 1997).

Collective teacher efficacy measures instructors' opinions about a faculty's collective potential to affect student achievement. Collective teacher efficacy refers to the average instructor's belief that faculty initiatives will enhance student accomplishment. One must consider whether an assessment of collective teacher efficacy should ask teachers about themselves or the faculty as a whole is debatable. The following sample teacher competency items illustrate the distinction between these two options: 1) Individual orientation: "I can reach the hardest students." 2) Group orientation: "This school's teachers can reach the hardest students." 1998 (Goddard).

Meanwhile, Tschannen-Moran and Hoy (1998) further expanded the development of collective teacher efficacy, building on the self-efficacy formulation Bandura (1977) produced. The term "collective teacher efficacy" (CTE) describes the impact that the collective efforts of the teaching staff have on the academic performance of the students (Goddard et al., 2000).

Collective efficacy refers to an organization members' perceptions of "the performance capability of a social system as a whole" (Bandura, 1997, p. 469). The relationship between performance and efficacy perceptions is strong. Similar to perceived self-efficacy, collective efficacy beliefs affect group tasks, effort, persistence, shared thinking, stress, and achievement. To understand collective efficacy's normative impact, one must appreciate that schools and their cultures create complex and

influential social settings for students and teachers (Goddard et al., 2017). According to Bandura (1997)

Analysis of the culture of organizations should be concerned not only with traditions of how things are done but also with shared beliefs about the organization's capabilities to innovate and perform effectively. Because of their diverse impact, an organization's beliefs about its efficacy to produce results are undoubtedly an important feature of its operative culture. (p. 476).

In the same way that individual teacher efficacy beliefs help to explain, at least in part, the effect that teachers have on student achievement (for example, Anderson, Greene, & Loewen, 1988; Ashton & Webb, 1986; Ross, 1992), collective efficacy helps to explain, from an organizational point of view, the different effects that schools have on teachers and students (for example, Bandura, 1993; Goddard, 2001; Goddard & Goddard, 2001; Goddard, Hoy, & LoGerfo, 2004; Ross, 2003). This is because a strong sense of collective efficacy among educators tends to encourage the kinds of effort, creativity, and perseverance necessary to enhance student learning. They argue that persistent effort not only promotes higher overall achievement but also contributes to the reduction of achievement gaps. Because of this, even though the social cognitive theories that they will talk about in the next few paragraphs have been used to explain differences in average outcomes between groups in the past, they think that these same theories may work in schools in ways that promote equity by closing achievement gaps (Goddard, 2017).

Collective efficacy views influence individual and group behavior by setting expectations that support some acts and inhibit other actions like stop doing things, not contributing and behaving selfishly (Sampson, Morenoff, & Earls, 1999). Sampson et al. contend that collective efficacy is crucial to group functioning because it explains how coordinated activity produces results. Dense, trusting relational networks may indicate considerable social capital in a group. However, Sampson et al. suggest that social resources can best affect outcomes when a group's collective efficacy is strong enough to motivate members to achieve organizational goals.

Human agency—a key postulate of social cognition theory—explains this relationship between efficacy beliefs and action. Efficacy for various pursuits substantially influences the decisions individuals and groups (via individual members) make. Collective efficacy plays a crucial role in organizational agency, as it encourages

groups to persistently pursue goals they believe they can achieve. High expectations and a strong sense of group efficacy encourage persistent corporate goals. Thus, collective efficacy beliefs predict group results (Goddard, 2017).

2.12.1 Elements of Collective Efficacy

According to the Tschannen-Moran et al. (1998) model of teacher efficacy, these two factors are essential to collective teaching efficacy: task analysis/difficulties and competence assessment. They also believe that teachers' evaluations of group competency depend on the difficulty of the teaching assignment. Despite discussing the teaching task and group competency individually, teachers build impressions of collective efficacy by weighing them together (Goddard, 2000).

Collective efficacy begins with instructional task analysis. The teaching task analysis is how teachers determine what they need to teach. We conduct analysis both at the individual and school levels. The research infers what it would take for instructors in that school to succeed. Students' abilities and motivations, educational materials, community resources and limits, and the school's physical facilities define the task. To conclude, teachers assess their school's teaching achievements, its challenges, and its resources (Goddard, 2000).

The second is group competency. We assessed collective teacher efficacy using a seven-item scale. A one-dimensional scale was envisioned. The items covered instruction, motivation, student behavior management, student needs, and safety (Skaalvik & Skaalvik, 2007). For group competencies, teachers explicitly evaluate their colleagues' teaching skills based on their school's teaching task. Teaching competence analysis at the school level reveals faculty abilities, methodologies, training, and expertise. Positive faculty beliefs in their students' success may also be considered teaching competence (Goddard et al., 2000).

2.12.2 Factors Influencing Collective Efficacy

To better understand the school factors that might affect collective efficacy, it's important to look at the sources of information that group members use to form their beliefs about the group's ability to reach its goals and how they personally interpret that information (Goddard et al., 2017). This is because sources of efficacy—belief-shaping information—are one of the factors that may influence collective efficacy. According to Bandura's 1997 social cognitive theory, one's lived enactive mastery experiences serve as the most potent source of information that can shape their sense of efficacy. Collectively achieved past successes, also referred to as mastery experiences, tend to

boost individuals' confidence in their group's potential to achieve similar success in the future. According to Bandura's social cognition theory (Bandura, 1977, 1986), individuals of a group can gain a significant amount of knowledge about their own capabilities by witnessing how others achieve success in situations that are comparable to their own. A major tenet of social cognitive theory is that, in addition to vicarious learning, social persuasion possesses the ability to alter an individual's perception of their own performance. Persuasion in the form of strong group norms and by official and informal group leaders (such as administrators and teachers) has the ability to impact the views of instructors and, as a result, the actions that they exhibit in the classroom. Last but not least, affective states are also significant to organizations and the subsequent efforts that they make in order to achieve group objectives. Factors such as success and tragedy, reactions to public comments regarding academic performance, and the emotional responses of group members to the complex and vast web of interactions that characterize organizational life can potentially influence collective efficacy views.

2.12.3 The Findings of One-Dimensional Construct of Collective Efficacy

Rather than consisting of two distinct and independent constructs, the multiple loadings in Goddard's (1988) study suggest that collective teacher efficacy is actually a single construct and also based on the relationship between teachers' views of group competence and the task analysis. Tschannen-Moran, Hoy, and Hoy (1998) created a model of teacher efficacy that aligns with a single collective efficacy construct. In other words, teachers find it challenging to distinguish between their opinions about the teaching task analysis and their opinions on group competency. Pajares (1996b), who contends that efficacy perceptions are task-specific, shares this opinion. Similarly, the scale's 21 components all loaded heavily on one factor (Goddard et al., 2000; Lim & Eo, 2014). They then performed a principal axis factor analysis on the 12 items selected for the short version. The results reveal the recovery of a single component from a one-factor solution, which accounts for 64.10% of the variance and has an eigenvalue of 7.69 (Goddard, 2002).

2.13. Self-Efficacy in Social Cognitive Theory

According to Bandura (1997), social cognitive theory extends the idea of human agency to collective agency. A fundamental component of collective agency is people's shared conviction that they can work together to achieve desired outcomes. In addition

to the members' common goals, expertise, and abilities, group accomplishments are the result of their transactions' interactive, coordinated, and synergistic dynamics. In actuality, Bandura (2001) has largely limited human agency to individual, personal agency, where agency refers to intentional acts. "Perceived self-efficacy is defined as people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performance," according to Bandura's (1986) formal definition of the concept (p. 391). The theoretical foundation of self-efficacy is social cognitive theory, which emphasizes the development and use of human agency—the notion that individuals have some control over their actions (Bandura, 2006a). He underlined that individuals create intentions, establish objectives, predict probable results, track and control behavior, and evaluate their own effectiveness. This idea emphasizes how individual characteristics (such thoughts), actions, and surroundings interact. According to this viewpoint, environmental factors impact self-efficacy, which in turn influences one's objectives and actions (Schunk & Meece, 2006).

Social cognitive theory holds that cognition, behavior, and the environment interact in a triadic relationship. People learn by watching, interpreting, and responding to their surroundings. Individual-level social cognitive theory constructs include self-regulation, self-motivation, and self-efficacy (Goddard, et al., 2015).

2.13.1 Teacher Self-Efficacy

The term "self-efficacy" refers to the views that individuals have on their capacity to successfully carry out a specific course of action (Bandura, 1997). According to TschannenMoran and Hoy (2001), the term "teacher self-efficacy" describes the belief that a teacher has in his or her own capacity to bring about the desired outcomes of academic engagement and learning among students. Tschannen-Moran and Hoy (2001) have demonstrated that teachers' self-efficacy positively influences their teaching behaviors. It is believed that teachers' self-efficacy could enhance student accomplishment and motivation. Evidence has shown that teachers' self-efficacy influences their teaching practices as well as the motivation and achievement of their students. Furthermore, studies (Klassen & Tze, 2014; Tschannen-Moran & Hoy, 2001, 2007; Zee & Koomen, 2016) have demonstrated the significant role of teacher self-efficacy in both teaching effectiveness and school improvement. Tschannen-Moran and Hoy (2001) developed the Teachers' Sense of Efficacy Scale (TSES), which is a task-specific construct that focuses on three areas of classroom teaching: instructional techniques, classroom management, and student engagement.

According to Klassen and Tze (2014) these three dimensions collectively reflect the general teaching capacities of teachers and closely correlate with the measurement of teaching effectiveness.

According to Bandura's (1977) social cognitive theory, teacher self-efficacy is defined as the result of a cognitive process in which individuals develop beliefs about their capacity to perform at a specific level of competence. This definition is based on understanding how people construct their beliefs. Bandura (1977) found that instructors who have a high level of self-efficacy are more likely to set difficult goals for themselves, whereas teachers who have a low level of self-efficacy are more likely to tend to concentrate on their deficiencies.

2.14 Sources of Teacher Efficacy

Mastery, vicarious, linguistic (social), as well as physical and emotional feelings (affective state) is four origins of self-efficacy, according to Bandura (1997). Vicarious experience or verbal persuasion with principals and coworkers can boost teachers' self-efficacy (Fackler & Malmberg, 2016; Tschannen-Moran & Hoy, 2007).

2.14.1 Mastery Experience

Enactive mastery experiences are widely considered as the most influential source of self-efficacy (Bandura, 1997; Usher & Pajares, 2008). These experiences are characterized by personal accomplishments that stem from previous performance achievements. Bandura has referred to this source in various terms, such as "performance accomplishments" (e.g., Bandura, 1977) and "enactive attainments" (e.g., Bandura, 1986). Mastery experiences, therefore, involve the achievement of goals through the execution of direct, personal actions. According to Bandura (1997), people who perceive their past efforts as failures are more likely to doubt their capabilities, whereas those who interpret previous attempts as successful are more likely to approach similar tasks with confidence. Mastery experiences can be particularly impactful when people succeed in fulfilling tasks that are extremely challenging. On the other hand, their influence may not be strengthened if the achievement requires extra efforts or relies heavily on external assistance. When success is attributed to factors other than one's own abilities or effort, it may not significantly enhance self-efficacy.

Mastery experiences are essential for organizations; in fact, a considerable body of research is emerging on organizational learning (Huber, 1996; March, 1996; Simon, 1996). Mastery experiences are vital for organizations. According to Huber's

examination of learning organizations, schools, much like individuals, “tend to learn well what they do, and tend to do what they learn well” (p. 152). This is consistent with learning organizations. It should come as no surprise that the learning that takes place within a group is what constitutes organizational learning. The teaching profession as a whole is subject to both successes and failures. Failures have a tendency to impair a sense of collective efficacy, whereas successes in the past at the school tend to reinforce teachers’ faith in the potential of the faculty themselves. On the other hand, when success is frequent and comes with little effort, even a single failure is likely to result in feelings of discouragement. It is necessary to have previous experience in overcoming challenges via consistent effort in order to develop a resilient sense of collective efficacy.

2.14.2 Vicarious Experience

The act of witnessing a social model or even oneself carry out a task might result in the development of a vicarious experience. Bandura (1997) observes that situations where the work at hand is relatively novel can witness the substantial impact of a vicarious experience on the development of self-efficacy. Vicarious experiences are also more powerful when the individual perceives the model or comparison group to be comparable to them. Kitsantas et al. (2000) and Schunk and Hanson (1989) found that models who publicly struggle to overcome problems (also known as coping models) are more likely to boost an observer’s self-efficacy than models who appear to make few mistakes. They refer to these models as coping models. Referential comparisons, also known as enactive mastery experiences, occur when an individual evaluates their skills by comparing their own performance to those of others they have observed (Bandura 1986, 1991). A vicarious experience occurs when another individual imitates the ability in question. When a model that the observer identifies with performs exceptionally well, it is highly likely to strengthen the observer’s efficacy views. Goddard et al. (2004) found that when a model performs poorly, the observer’s opinions of its efficacy tend to decrease.

Observing successful organizations, particularly those that achieve similar goals in the face of familiar opportunities and constraints, may enhance perceived collective efficacy, just as observing successful models with similar characteristics enhances teachers’ sense of efficacy (Gorrell & Capron, 1988; Schunk, 1981, 1983, 1987; Schunk & Zimmerman, 1997). This is especially true for organizations that have been successful in the past. Additionally, organizations have the opportunity to learn from

counterparts who have achieved highly valued outcomes, even if they are quite dissimilar. Schools commonly aspire to achieve similar levels of success by replicating educational programs that have proven successful in a wide variety of settings. Indeed, in the current high-stakes system of state-mandated testing and accountability, schools that are interested in improving educational results may experience increases in perceived collective efficacy by witnessing successful educational programs offered by schools that have greater levels of achievement. An example of vicarious organizational learning is borrowing from other organizations. According to Dutton and Freedman (1985), this type of learning can often be just as beneficial as learning something firsthand yourself.

2.14.3 Social Persuasion

Evaluative feedback in the form of social persuasions may also influence efficacy beliefs. According to Bandura (1997), the perceived knowledge or credibility of the person delivering the feedback frequently mediates the ability of social persuasions to improve an individual's self-efficacy. The effectiveness of praise not only depends on the presentation style of a message, but also on the individual delivering the appreciation. Encouragements that are little more than “knee-jerk praise or empty inspirational homilies” (Pajares 2006, p. 349) are not likely to have a significant impact on the recipient. On the other hand, messages that are particular and honest have the potential to have a significant impact on the development of an individual's sense of self-efficacy (Schunk 1984; Hattie & Timperley 2007). According to Bandura (1997), it is possible that negative messages are more likely to undermine an individual's self-beliefs than positive persuasions are to increase them. When an individual has limited experience in a particular field, social communications are especially effective because of their broad appeal.

When it comes to determining what they are capable of doing in a particular circumstance, individuals also consider their own physiological and emotional conditions. The following are examples of such states: stress, weariness, anxiety, and mood. It is also possible that the intensity of these emotions will affect one's understanding. A number of empirical data (Cassady & Johnson 2002; Keeley et al. 2008) support Bandura's (1997) assertion that moderate arousal levels lead to optimal performance.

It is possible for social persuasion to encompass talks regarding the capacity of instructors to influence pupils in the teachers' lounge, the community, or the media.

Additionally, social persuasion may involve encouragement or specific performance evaluation from a supervisor or a colleague. While social persuasion may not be able to permanently alter efficacy beliefs, it can counteract periodic setbacks that could have instilled self-doubt and disrupt persistence. According to Bandura (1986), persuasion works best when the individual who does the persuading is shown as credible, trustworthy, and knowledgeable.

2.14.4 Affective State

The level of arousal an individual experiences, whether it is anxiety or excitement, can influence their perceptions of personal strength or weaknesses. According to our premise, organizations respond to stress in much the same way individuals do. For example, one significant factor influencing the attitude of local schools is their recent performance on state-mandated examinations. When success is documented and widely recognized, it can serve as a powerful influence. Organizations with a high level of confidence in their collective abilities are often able to operate without suffering negative consequences. This confidence enables them to resist pressure, manage crises, and maintain normal functioning.

In fact, such organizations often learn to rise to the occasion and overcome obstacles when faced with challenges that disrupt their operations. Conversely, there is a strong correlation between organizational ineffectiveness and a higher risk of failure. This is because less effective organizations are more likely to respond dysfunctionally to stress, increasing the likelihood of negative outcomes. Affective states may therefore shape how businesses perceive and respond to the challenges they encounter. Although research on the influence of organizational affective states on participants' collective efficacy and performance is limited, future studies should explore this plausible hypothesis (Goddard, 2004).

2.15 Relating IL and Teacher Self-Efficacy

Leithwood and Beatty (2008) pointed out that the majority of research on leadership practices and teacher efficacy “primarily focused on transformational leadership behaviors (p. 53).” However, there were very few exceptions that Leithwood and Beatty (2008) examined the relationship between IL practices and teacher self-efficacy. There are just a handful of studies that have examined the connection between IL behaviors and teacher self-efficacy (Calik et al., 2012; Fackler & Malmberg, 2016). For instance, Calik et al. (2012) discovered that IL had a favorable and substantial

influence on self-efficacy, as well as a positive and significant effect on collective efficacy. Furthermore, Blase and Blase (2002) observed that competent administrators who focused on links between social and professional interactions with school instructors were able to guide teachers to effectively complete their daily work duties. Derbedek (2002), Ross (1994), Calik et al. (2012), and Zheng et al. (2019) are some of the researchers that have established a connection between the instructional leadership of school principals and the self-efficacy of teachers.

Principals' instructional leadership behaviors, both at the school and individual levels may have a connection to teachers' self-efficacy. At the school level, teachers can achieve a greater degree of efficacy by implementing leadership behaviors such as establishing a favorable environment for instruction and formulating guidelines and expectations for the institution (Fackler & Malmberg, 2016). Principals who have high standards for teaching, attend teachers' classrooms, and provide feedback can facilitate the development of efficacy at the individual level (Day et al., 2011; Tschannen-Moran and Hoy, 2007).

Examining the relevant literature carefully makes it easy to identify research that supports this finding. As an illustration, Derbedek (2008) discovered that the instructional leadership behaviors of school principals positively predicted teachers' self-efficacy. Similarly, Howard (1996) provides evidence that there is a causal connection between these two variables. Along the same lines, Ross (1994) asserts that leadership is a significant factor in determining the level of self-efficacy that teachers possess. Weisel and Dror (2006) observed a positive and significant association between supportive and non-threatening leadership and teachers' self-efficacy levels. The research by Calik et al. (2012) looked at the connections between the different aspects of instructional leadership and teachers' self-efficacy. It was clear that the most important link was found between evaluating the teaching process and students, which is an aspect of instructional leadership, and teachers' confidence in their ability to use instructional strategies ($r=.27$, $p < .01$). However, Zheng et al., 2019 found no statistically significant effect of IL on teachers' self-efficacy.

In one study, collective teacher efficacy was conceptualized as teachers' belief in their abilities to positively impact student learning at school level and the school development as a whole (Qadach et al., 2020; Tschannen-Moran & Barr, 2004). Previous studies have shown that instructional leadership strengthens collective teacher efficacy at school level (Hallinger et al., 2018b; Salazar, 2014). Such finding is

expected as instructional leadership emphasizes articulating an inspiring vision of learning for the school, setting attainable goals, and developing a positive school climate for student learning. Besides, instructional school leaders are keener to promote collaboration among teachers and thus could improve collective teacher efficacy at school level (Tschannen-Moran & Barr, 2004).

2.16 Relationship between IL and Teacher Collective Efficacy

Goddard et al. (2015) conducted a study that demonstrates the significant role of school leadership in determining the collective efficacy views of teachers. This finding is significant. To be more specific, the higher the focus that school leaders have on the development of instruction, the larger the amount of collaboration that teachers undertake to improve instruction, and the greater their sense of collective efficacy. They believe school leaders can influence teachers' work and perceived school efficacy. Therefore, they will now dive into a succinct analysis of the research on the impact of school leadership (Goddard et al., 2017). According to the findings of Goddard et al. (2015), the instructional leadership of principals is a major positive predictor of collective efficacy views. This is because of the instructional leadership's influence on the collaborative work of teachers.

Furthermore, school administrators' instructional leadership behaviors cultivate collective efficacy beliefs among teachers, which are based on collaboration and sharing (Chong & Ong, 2016; Goddard et al., 2015). These beliefs hold that instructors learn for themselves. Similar studies found that instructional leadership positively impacted the collective teacher efficacy (Calik et al., 2012; Fancera & Bliss, 2011; Goddard et al., 2015; Hallinger et al., 2016; Hallinger & Lee, 2013; Cansoy et al., 2022). The principals of schools have a responsibility to foster the growth of their instructors and acknowledge their accomplishments. According to Goddard et al. (2015), school principals who do not pay attention to the needs of teachers and who do not provide feedback on the teachers' preferences have the potential to hinder not just the teachers' individual sense of self-efficacy but also the teachers' ability to collaborate with one another.

2.17 Relationship between TCE and Teacher Commitment

There is a correlation between organizational commitment and teachers' collective efficacy, according to both theoretical and empirical research (Calik et al.,

2012; Ross & Gray, 2006b; Ware & Kitsantas, 2011). Empirical and theoretical investigations have demonstrated this association.

Additionally, Cansoy et al. (2022) found a substantial link between collective teacher efficacy and teacher commitment, as well as an influence of collective teacher efficacy on teacher commitment. According to Voelkel and Chrispeels (2017), collective teacher efficacy has a substantial impact on the levels of interest that instructors have in making their classes entertaining and on their capacity to meet the demands of their pupils. Research has shown that individual teacher efficacy predicts teachers' commitment to their schools. According to the findings of Ross and Bruce (2007), collective teacher efficacy served as a mediator of commitment in educational institutions. Lee et al. (2011) documented a significant relationship between trust and collective teacher efficacy among colleagues, which significantly impacts teacher commitment.

Similar studies have shown evidence that collective teacher efficacy is highly associated with teacher commitment (Donohoo 2018, Chung 2019; Hosseingholizadeh et al., 2023; Qadach et al. 2019). These findings come from researchers who have explored this relationship in different contexts. Building on this idea, Donohoo (2018) indicated that collective teacher efficacy is associated with other positive factors such as increased job satisfaction, commitment to students and to teaching profession, and positive attitudes toward teaching students with special education needs and providing professional development opportunities. Additionally, Qadach et al. (2019) found that collective teacher efficacy emerged as a key mediator between principals' instructional leadership and a teacher's intention to quit their position. In light of this, it would appear that teachers who are higher in both collective and personal efficacy are more likely to demonstrate a greater commitment to teaching (Coladarci, 1992). Furthermore, it is worth noting that collective teacher efficacy has the potential to strengthen teacher commitment by involving them in decision-making processes (Al-Mahdy et al., 2018; Leithwood et al., 2010; Ninković & Knežević Florić, 2016).

When faced with classroom stress, teachers with high self-efficacy solve problems, whereas those with low self-efficacy avoid them. Low instructional self-efficacy leads to poorer teaching commitment (Bandura, 1997). Chan et al. (2008) presented a model of teacher commitment in which self-efficacy mediates antecedent variables and occupational commitment. According to Ware and Kitsantas (2007), teachers who were confident in their instruction management skills were more

committed to teaching. Research from western and nonwestern cultures reveals that self-efficacy and teacher commitment are linked.

2.18 Relationship among IL, TCE and TC

The literature suggests that the relationship between instructional leadership and teacher commitment is mediated by collective teacher efficacy (Chung, 2019; Qadach et al., 2020). This is indicated by a closer assessment of the information that has been published. For example, the research conducted by Al-Mahdy et al. (2018) discovered that there is a strong and indirect connection between instructional leadership and teacher commitment. This connection was discovered among primary school administrators in Oman using the concept of collective teacher efficacy. In a similar vein, a study that was carried out in Iran by Hallinger et al. (2018b) demonstrated that there is a strong mediating influence of collective teacher efficacy on the connection between instructional leadership and teacher commitment. Cansoy et al. (2020) did a study in Turkey regarding the relationship between instructional leadership and teacher commitment. They discovered that collective teacher efficacy was a significant mediator between the two. Furthermore, a recent study conducted by Hosseingholizadeh and colleagues (2020) has provided further evidence that the considerable indirect connection that exists between instructional leadership and teacher commitment is significantly mediated by collective teacher efficacy. In light of this, the purpose of the current study is to investigate an indirect effect with teacher commitment as a multidimensional construct that is comprised of three dimensions (commitment to school, dedication to students, and commitment to teaching). This is done in order to broaden the knowledge base in this research domain.

In a nutshell, it is possible to assert that the collective teacher efficacy or teacher commitment will increase if the instructional leadership behaviors of the school principals are increased and that the collective teacher efficacy or teacher commitment will decrease if the school principals' instructional leadership behaviors are decreased (Cansoy et al., 2022).

2.19 Relationship between Teacher Self-Efficacy and TC

Chesnut and Cullen (2014), González et al. (2018), Hallinger et al. (2018), McKim and Velez (2015), and Ware and Kitsantas (2007) all found a significant correlation between teachers' sense of self-efficacy and their professional commitment. Collectively, self-efficacy, emotional intelligence, and satisfaction with anticipated

future work environments among pre-service teachers explained 26.2% of the variance in their level of commitment ($R^2 = 0.262$). This result was statistically significant, $F(3, 205) = 24.266$, $p < .01$. Chesnut and Cullen (2014) further reported that self-efficacy alone accounted for 3.53% of the variance in teacher commitment, while the broader set of self-efficacy variables explained 20% of the variance ($R^2 = .20$) in early-career agriculture teachers' career commitment. Similarly, McKim and Velez (2015) found that teachers who felt confident in their instructional management abilities reported greater commitment to the teaching profession.

2.20 The Relationship between IL and Teacher Commitment

Ail et al. (2015) conducted an investigation in three junior science colleges in Malaysia on the relationship between instructional leadership and teachers' commitment. The findings of this investigation revealed that there is a significant connection between principals' instructional leadership and teachers' commitment. Leadership from the principal of a school has an effect on the level of dedication shown by teachers (Hallinger, 2018; Sun, 2015). Leithwood and Sun (2012) assert that leadership techniques aimed at enhancing the capacities of school staff significantly influence the dedication levels of teachers. The literature acknowledges that school principals who show appreciation for their teachers, make contributions to their professional development, and encourage collaboration among colleagues have a beneficial impact on the level of commitment displayed by teachers (Geijsel et al., 2003; Hallinger et al., 2018b). Research has demonstrated that there is a considerable and favorable connection between the leadership of principals and the level of dedication shown by teachers (Hallinger & Lu, 2014; Marshall, 2015). As an illustration, Hallinger et al. (2018b) have demonstrated that there is a favorable correlation between principal instructional leadership and teacher commitment among Iranian primary school teachers and primary school heads. In a similar vein, Cansoy et al. (2020) discovered that instructional leadership was a major predictor of teacher commitment among instructors in Turkey. A study in Iran by Hosseingholizadeh & colleagues (2020) also found a large direct association between principal instructional leadership and teacher affective commitment.

Instructional leadership is particularly important for the purpose of encouraging teachers to develop a stronger commitment to teaching, which, in turn, contributes to an improvement in the learning outcomes for students (Sun, 2015). According to Hallinger

and Heck (1998), effective instructional leadership has the potential to raise the level of dedication that instructors have for their specific responsibilities, as well as their readiness to commit themselves to the overall growth of the school. In addition, school principals who are able to establish school goals and tasks, enhance teacher performance, reduce issues in teaching processes, and enhance the learning environment in schools can encourage teachers to remain committed to the teaching profession (Hallinger, 2018a). According to Ware and Kitsantas (2011), the efficacy of school leaders has an effect on the level of commitment that teachers have to engage and collaborate in the management of decision-making processes.

Researchers found that principals' instructional leadership generally influences all four aspects of teacher commitment: school commitment, student commitment, teaching commitment, and profession commitment. However, the degree of teachers' commitment to their pupils and to teaching is largely unaffected by instructional leadership. The findings of the study indicate that there is no substantial direct relationship between instructional leadership and the level of commitment that teachers have to their job (Thien et al., 2021).

Research on school leadership in Bhutan (Pelzang, 2014), Iran (Hallinger et al., 2017), Hong Kong (Hallinger & Lu, 2014), and Malaysia (Ponnusamy, 2010; Rosdi, 2012) has consistently found a positive correlation between principal leadership and teacher commitment. Others have investigated the relationship between collective teacher efficacy and teacher commitment (Calik et al., 2012; Chan, Lau, Nie, Lim, & Hogan, 2008; Hallinger et al., 2017; Solomon, 2007). These studies have concentrated on understanding how the relationships work.

Moreover, studies (Chan, Lau, Nie, Lim, & Hogan, 2008; Firestone & Pennell, 1993; Liu, 2015) have shown that teachers' commitment to their profession and to school both increase when they believe they work in a supportive school environment that encourages their professional development. Numerous studies in the field of education have observed this phenomenon. The dedication of teachers is an important factor in the success of their students. According to Lee, Zhang, and Yin (2011) and Lyons, Thompson, and Timmons (2016), educators who are actively engaging with students demonstrate a high level of commitment to both their profession and the institution in which they work.

Firestone and Pennell (1993) linked teacher commitment to a number of factors, including the teacher's background, school attributes, school leadership, and working

conditions. The school principal's leadership influences teacher dedication (Hallinger, 2018; Sun, 2015). Leadership strategies aimed at building school personnel's capacities significantly impact teacher engagement (Leithwood & Sun, 2012). School administrators who value their teachers, support their professional growth, and foster collaboration among colleagues positively impact teacher commitment, according to the literature (Geijsel et al., 2003; Hallinger et al., 2018b). Research (Hallinger & Lu, 2014; Marshall, 2015) demonstrates a significant and favorable correlation between principal leadership and teacher commitment. For instance, among Iranian primary school teachers and primary school heads, Hallinger et al. (2018b) have verified a positive correlation between principal instructional leadership and teacher dedication. Similarly, Cansoy et al. (2020) discovered that among Turkish teachers, instructional leadership was a strong predictor of teacher commitment. Hosseingholizadeh et al. (2020) conducted an Iranian study that validated a strong direct correlation between teacher affective commitment and principal instructional leadership.

Cansoy et al. (2020) found a strong correlation between teacher commitment and instructional leadership techniques, such as providing guidance and concentrating on teaching and learning, which could explain the significant and positive link. In particular, instructional leadership is essential for increasing instructors' dedication to their work, which enhances student learning outcomes (Sun, 2015). Teachers' commitment to their work and readiness to invest in the overall development of the school may both rise with effective instructional leadership (Hallinger & Heck, 1998). Additionally, school principals can encourage teachers' dedication to their profession by establishing school goals and tasks, enhancing teacher performance, resolving issues in the teaching process, and improving the learning environment in the school (Hallinger, 2018a).

A growing body of research emphasizes the connection between teachers' dedication and school directors' instructional leadership (Dou et al. 2017, Cansoy et al. 2020). Dou et al. (2017), for instance, claimed that instructional leadership had a major impact on teachers' organizational commitment. According to Hong and Matsko (2019), the best way to increase teacher organizational commitment is to combine improved mentoring, opportunities for interaction with teaching practice, and greater leadership. Cansoy et al. (2020) found that the instructional leadership behaviors of school administrators could predict teachers' school commitment, mostly by influencing teacher collaboration.

2.21 Collective Efficacy and Reciprocal Causality in Education

There is reciprocal causality, which means the relationship between teacher collective efficacy and teachers' behavior, student performance, and the overall school environment. In social cognition theory, Bandura (1986) placed considerable emphasis on the concept of reciprocal causality. Bandura (1997) advanced the hypothesis that social cognitive theory postulates that, in the context of a school setting, collective effectiveness beliefs interact with the behaviors of instructors. In the theory of reciprocal causality, individual and organizational factors influence one another in a mutually beneficial manner. This contact is of tremendous significance in terms of the development of individuals' cognitive, social, and behavioral capabilities, as well as the recognition and utilization of their strengths and the enhancement of their motivation to accomplish the goals (Wood & Bandura, 1989). The school serves as a social environment among its students. At the school, they all adhere to the same set of beliefs. According to Bandura (1995), the social influence that results from these ideas is what ultimately determines the level of self-efficacy that instructors have.

Additionally, the sources, impediments, and opportunities that are present within the system help expose the levels of effectiveness that individuals possess. According to Tschannen-Moran et al. (1998), the current scenario makes it possible for educators to participate in collaborative activities that are relevant to a variety of cases. An example of this is how teachers' negative words can lead to pupils having negative expectations of them, which in turn can increase teachers' thoughts about their own inefficacy (Bandura, 1993). Consequently, the self-efficacy of teachers may develop as a consequence of the pleasant experiences they have obtained while working in a school that has a high collective efficacy. Furthermore, when instructors' opinions of their own self-efficacy improve, there is a possibility that their feelings of collective efficacy will also improve. In contrast, collective efficacy has the potential to enhance the beliefs that teachers have regarding the accomplishments of their students. Goddard et al. (2000) found that teachers' ideas about their own skills can improve the quality of education and that these perceptions increase in tandem with students' achievements in school.

Furthermore, they can assert that teachers' perceptions of self-sufficiency in implementing practices for student learning play a significant role in fostering a shared performance that ensures students achieve academic success. And, the ideas that instructors hold regarding the planning and implementation of activities to boost student achievement at school can help them make a greater effort to improve student learning.

Strong relationships among individuals influence the establishment of social norms. Coleman (1985) asserts that the beliefs, attitudes, and behaviors of the entire group mirror these standards. When there is an increase in the level of teacher collaboration and real relationships in schools, it is possible for good or negative attitudes and beliefs to emerge in relation to the teaching process and the academic achievement of students. Based on Cybulski, Hoy, and Sweetland (2005), this indicates that teachers are more effective in various school activities. According to Goddard et al. (2000), the efficacy beliefs of instructors in relation to educating pupils generate a norm that influences both the activities of individuals and the accomplishments of the school as a whole. In addition, teachers exert influence over pupils as well as other educators through a variety of educational strategies. Occasionally, their peers and staff provide them with comments. Here, they are discussing the verbal persuasive sources of self-efficacy, or feedback. Simultaneously, they acquire knowledge and experience. When viewed from this perspective, the feedback and experiences of expertise either boost or weaken the collective efficacy of the teaching personnel. As a consequence of this, the level of collective efficacy can grow depending on the performance of pupils in school, which lends support to the assumptions made by Bandura and Coleman (Cybulski et al., 2005).

2.22 Relating Teacher Self-efficacy and Teacher Collective Efficacy

Numerous studies have illuminated the relationships between self-efficacy and collective sense of competence. Wu, Tsui, and Kinicki (2010), who conducted their research investigation on various firms, found that working alongside individuals who regarded themselves as highly competent boosted collective efficacy. Additionally, there are findings that have been documented in the academic literature that demonstrate that the self-efficacy of teachers can be utilized as a means to forecast the collective efficacy of teachers (Çalık et al., 2012; Demir, 2008; Ninković & Florić, 2016). Kurt (2009) discovered a correlation between collective teacher efficacy and teacher self-efficacy, and found that collective efficacy accurately predicted teacher self-efficacy. Tschannen-Moran and Hoy (2007) attribute the discrepancies in the research findings to the reciprocal causation of the relationship between self-efficacy and collective efficacy, along with the beliefs teachers hold about their personal competencies

These findings suggest a reciprocal causal relationship between teacher self-efficacy and collective efficacy. Bases on the finding, the self-efficacy beliefs in

educational inclusive showed that Cambodian teachers and head teachers rated high levels of efficacy in inclusive instruction, efficacy in managing behavior, and efficacy in collaboration. The mean ranged from 4.05 to 4.99 (Ravet, & Mtika, 2024)

2.23 Secondary Resources Schools in Cambodia

Secondary resource schools stand at the forefront of the educational network. These schools boast a diverse array of infrastructure and amenities, such as study buildings, conference rooms, laboratories, libraries, computer labs, audiovisual labs, and energy and water supplies, among others. In addition to being schools that are leading the way in research methodology and innovations in teaching and learning, these schools are also model schools in the areas of management and excellent governance. They utilize basic and additional facilities to implement these innovations. Through the organization of trial presentations in classrooms as well as regular teaching and training for teachers, secondary resource schools have the opportunity to share their respective experiences with other schools within the network. The goal is to enhance teaching and management capacities in school leadership, encompassing school development planning. In addition, these schools offer opportunities to assist kids who are slow learners and children who are members of minority ethnic groups with their academic performance. The goal is to increase equitable school attendance at secondary schools.

They established secondary resource schools based on the following criteria. They selected (1) schools that were already operational, exhibiting strong management and community-based partnerships; (2) schools with expansive campuses capable of future expansion; (3) schools with a robust safety record; and (4) schools equipped with a dependable electricity supply network, clean drinking water, laboratories, and computers. Schools with standardized infrastructure are required to include the following facilities: (1) offices for school principals, deputy principals, and secretariats; (2) conference rooms, teachers' rooms, scientific laboratories, computer labs, and audiovisual labs; (3) libraries; (4) canteens; and (5) hygienic restrooms. According to Hang Choun (2018), the goals of secondary resource schools are as follows: (1) to improve the sharing of practices, cooperation, and mutual support between the schools and teaching staff in the network; (2) to improve career development for teachers; (3) to strengthen the management and leadership of schools; (4) to promote school development plans and guarantee their implementation; and (5) to guarantee the implementation of life skills programs.

2.24 The Investment, Role and Impacts of SRSs in Cambodia

According to MoEYS (2008, p. 2), ‘SRSs are defined as schools that are equipped or provided with infrastructure and facilities, including buildings, meeting rooms, laboratories, libraries, a computer room, audiovisual rooms, a source of electricity and water, and so on. This includes the provision of training to staff on how to use those infrastructures and facilities’ (p. 2). It is necessary to find out (a) how much it has been invested and its roles within the school communities or school networks, and (c) its impact on teaching process and learning achievement.

The annual budget for operating the secondary resource schools, procuring materials and equipment, and establishing a scholarship scheme for underprivileged students has provided funding to the host schools. According to a staff member at Chbar Ampeouv Upper Secondary School, the interviewee disclosed, “My school has received around 35 million Cambodian Riels per year for water, electricity, equipment, and infrastructure renovation. As I know the funding was previously from ADB. The MoEYS will allocate it through the Public Budget (PB) starting this year. I received an additional 5 million Cambodian riel, bringing the total to 40 million Cambodian riels.” (Un et al., 2021).

The management board, teachers, and students of the Secondary Resource Schools (SRS) are expected to serve as role models for their communities and nearby areas, as outlined in the 2008 Secondary Resource Schools Policy and the 2018 Monitoring and Evaluation Framework (MoEYS). SRSs ought to serve as network hubs for fostering cooperation, sharing experiences, and inspiring solidarity among schools and within their wider communities. The introduction of SRS aids in advancing teachers’ professional growth; they exchange effective methods and insights regarding instruction, education, and administration with network schools; school improvement plans should be introduced and implemented; and teacher competency should be enhanced through professional development and mentoring (MoEYS, 2008).

Over the last ten years, there has been investment in both technical and financial support for SRSs in Cambodia. Many SRSs have been acknowledged for their swift advancement in teaching and learning development, particularly concerning student learning outcomes, which distinctly sets SRSs apart from other secondary school types nationwide. Scholars have observed that the success of SRSs reflects their efforts to mobilize infrastructure, financial resources, and personnel to improve student performance. This initiative has been in place for ten years, yet no research has

examined the effects of mobilizing resources on school performance, the impact of resource allocation on student performance or learning outcomes, or the effect of resource allocation on other facets of school-related improvement (Keo et al., 2021). Using Pearson's correlation, researchers found that improving infrastructure and human resources had a big effect on how well students did in school (Keo et al., 2021).

The aim of this study is to examine how resource allocation relates to teacher performance over the past five years. This research seeks to explain if resources (including the development of infrastructure, human resources, and budget) have a positive and significant link with teacher collective efficacy and commitment.

2.25 Empirical Studies

There have been a few studies about the influence of instructional leadership of school principals on teacher collective efficacy and teachers' commitment in various contexts. Below are the selected studies from various contexts published in high-quality journals.

2.25.1 Empirical Studies: Relationship among IL, TCE and TC

First, a study that used Structural Equation Modeling (SEM) to collect data from 111 principals and 345 primary teachers in Mashad city, Iran, discovered how leader self-efficacy beliefs and instructional leadership behaviors interact to shape collective teacher efficacy and commitment (Hallinger et al., 2018). The study was conducted in Iran. Additionally, they found that both the principal's instructional leadership and the collective teacher efficacy influenced the amount of teacher commitment to schools.

The second study, undertaken by Cansoy et al. (2022) with a sample of 247 teachers in Turkey, adopted multiple regression analysis to investigate the relationships between instructional leadership, teacher collective efficacy, and organizational commitment. The findings showed that instructional leadership was a significant predictor of both teacher collective efficacy and teacher commitment to school. Furthermore, instructional leadership was shown to positively influence both the collective efficacy of teachers and the overall organizational commitment. Moreover, collective teacher efficacy was identified as a key predictor of teacher commitment to the school, with a positive effect on teachers' commitment.

The third study by Thien et al. (2021) used Partial Least Squared Structural Equation Modeling (PLS-SEM) to analyze data from 357 teachers across five Chinese independent high schools in Penang, Malaysia found that instructional leadership has a

significant and direct impact on teacher commitment to school, students, and to teaching, but not commitment to the profession. It also highlighted the role of collective teacher efficacy in mediating the relationship between instructional leadership and the different constructs of teacher commitment. However, the researchers noted the study's limited sample size and suggested that future research should involve a larger, more diverse sample to improve representativeness and generalizability.

The fourth study by Al-Mahdy et al. (2018) used structural equation modeling to analyze data from 299 teachers across 15 schools in Oman found strong, significant direct effects of principal instructional leadership on collective teacher efficacy, along with smaller but significant direct effects on teacher commitment. Moreover, collective teacher efficacy was found to have a moderate, significant direct effect on teacher commitment. However, the researchers acknowledged the research sample size was relatively small and recommended further research with a larger sample.

The fifth study by Hosseingholizadeh et al. (2023), used confirmatory factor analysis, structural equation modeling, and bootstrapping to analyze data from 121 principals and 886 teachers in primary schools in Iran found that principal instructional leadership influences teachers' professional learning through collective efficacy and teacher commitment. However, the researchers suggested that the study should be replicated with a larger sample across different contexts, such as secondary schools or rural versus urban schools.

2.25.2 Empirical Studies: Relationship between IL and CTE

The first study by Calik et al. (2012) used structural equation modeling to analyze data from 328 primary schools in Ankara. The study found that instructional leadership had a significant direct and positive impact on collective teacher efficacy.

The second study by Cansoy and Parlar (2018) used multiple regression to analyze data from 427 teachers working in primary, middle and high school. The study found that school principals' leadership behaviors were positively and significantly related to collective teacher efficacy. Specifically, as principals demonstrated more effective leadership behaviors, teachers' collective efficacy beliefs increased.

The third study by Goddard et al. (2021) used multilevel structural equation modeling to analyze data from 95 principals, 1623 teachers, and 4,229 students in a Midwestern state. The study found that principal efficacy beliefs for instructional leadership had a statistically significant relationship with teacher collective efficacy.

The fourth study by Goddard et al. (2015) used multilevel structural equation

modeling to analyze data from 1,606 teachers in 93 elementary schools in the Midwestern U.S. The findings revealed that principals' instructional leadership is a significant positive predictor of collective efficacy beliefs, largely through its influence on teachers' collaborative work.

The fifth study by Qadach et al. (2020) used multilevel structural equation modeling to analyze data from 1,700 elementary teachers in 130 Jewish schools in Israel. The findings revealed a positive, significant relationship between instructional leadership and teacher collective efficacy.

2.25.3 Empirical Studies: IL and Teacher Commitment

The first study by Sarikaya and Erdogan (2016) used multiple regression to analyze the data from 441 teachers in 28 schools on the European side of Istanbul. The study found that the combined sub-dimensions of instructional leadership—such as setting and sharing school goals, managing the education program, evaluating the instructional process and students, supporting and improving teachers, and creating a well-organized teaching-learning environment—positively influenced organizational commitment.

The second study by Tatlah et al. (2019) use simple regression to analyze data from 30 private university teachers and 30 public university teachers in Pakistan. The study found that instructional leadership has a positive effect on teachers' job commitment.

The third study by Ail et al. (2015) used Pearson correlation to analyze data from 113 teachers in Malaysia. The findings revealed a moderately strong positive correlation between instructional leadership and teachers' commitment.

The fourth study by Sugandi (2021) used multiple regression to analyze data from 250 teachers in high schools in Yogyakarta province, Indonesia. The findings revealed that instructional leadership has a positive effect on organizational commitment.

2.25.4 Empirical Studies: TCE and Teacher Commitment

The first study by Ross and Gray (2006) used structural equation modeling to analyze data from 3,074 teachers in 218 elementary schools in Canada. The findings revealed that collective teacher efficacy is a strong predictor of commitment to community partnership, commitment to professional community, and commitment to the school mission.

The second study by Yurt (2022) used structural equation modeling to analyze

data from 320 teachers in public schools. The findings revealed that collective teacher efficacy has a positive effect on organizational commitment

The third study by Lee et al. (2011) used confirmatory factor analysis and multilevel structural equation modeling to analyze data from 480 teachers in 33 schools in Hong Kong. The findings revealed that faculty trust in colleagues and collective teacher efficacy significantly influenced teachers' commitment to students.

2.26 The Role of Social Cognitive Theory and Teacher Commitment

Social cognition theory (Tschannen-Moran & Woolfolk Hoy, 2007) also reveals a correlation between teachers' beliefs about their own efficacy, their behaviors, and how they interact with the environment. For instance, studies by Skaalvik and Skaalvik (2007) have demonstrated a positive correlation between self-efficacy and job commitment. Social cognition theory states that people typically pay attention to their own concepts, growth and development processes, and how their interactions with other people influence their conduct (Usher & Pajares, 2008). People's ideas and beliefs directly influence their behaviors, especially how committed they are to their work, according to Bandura (1977). A large body of research has demonstrated a strong relationship between teachers' self-efficacy and their commitment (Chesnut and Cullen, 2014; Gonzalez et al., 2018; Hallinger et al., 2018; Ware and Kitsantas, 2007). Gonzalez et al. (2018) found that teaching strategies predicted acquired competencies, and competences predicted teaching self-efficacy, and self-efficacy predicted commitment to teaching profession in a study including 842 Spanish pre-service teachers.

To sum up, the results of earlier research emphasize the significance of bolstering teachers' collective efficacy, given that these beliefs directly influence their commitment and overall effectiveness in teaching. It is consistently demonstrated that teacher collective efficacy impacts their professional dedication and effectiveness in work engagement, highlighting the importance of nurturing positive self-perceptions to improve job commitment and teaching outcomes.

2.27 Research Gaps

The relationship between instructional leadership, teacher collective efficacy, and teacher commitment has been the subject of a limited number of studies. Researchers have conducted these studies in a variety of settings with a small sample

size, utilizing a variety of approaches to analyze the data. Two studies conducted in primary school contexts in Oman in West Asia (Al-Mahdy et al., 2018) and Iran (Hosseingholizadeh et al., 2023) found that IL has positive effects on teacher commitment through teacher collective efficacy as a mediator, while the third study took place in five high schools in Penang, Malaysia (Thien et al., 2021). Each of these studies used structural equation modeling (SEM) for data analysis. However, they asserted that the studies had a small sample size and recommended conducting additional studies with larger samples to enhance generalization. In Turkey, researchers conducted a study on a similar subject, “Collective teacher efficacy as a mediator in the relationship between instructional leadership and teacher commitment”. The study involved primary and middle school teachers in a single district in Istanbul province, utilizing multiple regression for data analysis (Cansoy et al., 2022). The most recent study, conducted in Mashhad city, Iran, involved primary school teachers and principals, utilizing confirmatory factor analysis and structural equation modeling. On the other hand, the researchers who conducted these studies need to replicate their findings in a wider sample of schools that are located in other contexts, such as secondary schools or schools located in rural and urban areas (Hosseingholizadeh et al., 2023).

CHAPTER 3

RESEARCH METHODOLOGY

To conduct the research titled “The Impact of School Directors’ Instructional Leadership on Teachers’ Collective Efficacy and Commitment at the Secondary Resource Schools in Cambodia”, this chapter is mainly presented in the following main sections (1) research design, (2) research population and samples, (3) research instrument, (4) Pilot study, (5) Data collection procedure, and (6) data analysis.

3.1 Research Design

The present study adopts a quantitative approach with two research designs: correlational and causal comparative and use both exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) to determine and validate the factor structures associated with teacher commitment, instructional leadership, and teacher collective efficacy.

The correlational study is aimed to explore the relationships among the variables in a predictable pattern for one group of individuals (Creswell, 2012; Creswell & Creswell, 2018). First, correlational design within the current study, instructional leadership (creating school’s mission, managing instructional program, and developing a positive school learning climate) are examined to see their predictive effects on teacher collective efficacy (e.g. group competence, and task difficulty), and teacher commitment (commitment to school, commitment to teaching and commitment to students).

The casual comparative study is aimed to compare the different perceptions of teachers relating to instructional leadership (creating school’s mission, managing instructional program, and developing a positive school learning climate) and different types of teacher collective efficacy as well as teacher commitment between schools in 3 educational regions.

3.2 Research Population and Samples

3.2.1 Population

The target population for this study comprises secondary school teachers who currently teach in 50 secondary resource schools in 4 regions including Central Plain regions with 7 provinces (Kandal, Prey Veng, Kampong Cham, Tbong Khmum, Phnom

Penh, Svay Rieng and Takeo), Tonle Sap region with 7 provinces (Banteay Meanchey, Battambang, Kompong Chhnang, Kompong Thom, Pursat, Siemreap, Otdar Meanchey and Pailin), Coastal and Sea (Kompot, Kep, Preah Siarnouk, and Koh Kong) and Plateau and Mountain region with 6 provinces (Kampong Speu, Kratie, Mondul Kiri, Preah Vihear, Ratanak Kiri and Stung Treng) (Ministry of Planning, 2019).

Today, 50 secondary resource schools have been constructed throughout the country; each secondary resource school has a network of up to eight secondary schools for sharing resources with the secondary resource school. In average, two resource schools were established in each province or the capital city with a maximum of 3 and a minimum of 1. While provinces, i.e., Banteay Meanchey, Battambang, Kampong Thom, Kandal and Prey Veng hosted up to three secondary resource schools; the ADB only funded one secondary resource school each in Mondulkiri, Kep, Pailin, Ratanakiri and Stung Treng. Other provinces hosted two secondary resource schools in each (Chhun, & Ponn, 2020).

The population of this study is teachers from 50 secondary resource schools in some provinces in Cambodia. As it is the correlational research, the sample size was chosen based on the recommendation by Hair et al., (2019). When confirmatory factor analysis and structural equation modeling are employed, the sample size should normally be at least five times as large as the number of observed variables or items (Hair et al., 2019).

3.2.2 Research Samples

The sample of the study consists of 619 secondary resource school teachers who were teaching grade seven through twelve. Simple Random Sampling was used twice to select the samples of the study. First, we use Simple Random Sampling to select 3 regions. Then this sampling technique was also used to select the 2 provinces from each selected region. The way to do this was to write each region (region 1, region 2, region 3, and region 4 representing Central Plain, Tonle Sap, Coastal and Sea, as well as Plateau and Mountains) on a separated slip of paper, then place all the four slips in a container, after that shake the container and select the folded slips one by one three times from the container. As a result, the surveyed participants of the current study would comprise of teachers who are teaching in three regions selected from four regions including Central Plain, Tonle Sap, as well as Coastal and Sea, (Ministry of Planning, 2019).

And then, Simple Random Sampling is also used to select 2 provinces from each selected region including Central Plain (comprising 7 provinces and city- Kandal, Prey

Veng, Kampong Cham, Tbong Khmum, Phnom Penh, Svay Rieng and Takeo), Tonle Sap (comprising- Banteay Meanchey, Battambang, Kompong Chhnang, Kompong Thom, Pursat, Siemreap, Otdar Meanchey and Pailin), and Coastal and Sea (comprising four provinces- Kompot, Kep, Preah Sihanouk, and Koh Kong). The same procedure as selecting regions above is used to select six provinces from three selected regions. Based on the simple randomly technique our sampled province of the study are Phnom Penh, Takeo, Kampong Chhnang, Kampong Thom, Kompot and Prea Sihanouk.

The resource schools in these six provinces and city are the sample of the study. The sampled schools in Phnom Penh are Hun Sen Champouvorn Upper Secondary school (Por Senchey) and Chbar Ampeouv upper secondary school (Mean Chey), Schools in Takeo including Chea Sim Takeo upper secondary school, Samdech Ov high school, Kampong Chhnang including Preahbat Soramrith Upper secondary school, Hun Sen Bori Bo upper secondary school; Kampong Thom including Hun Sen Balang High school, Kampong Thmar Upper Secondary school; Kompot including Preah Reach Samphea upper secondary school, Hun Sen Chhouk upper secondary school; Preah Sihanouk including Krong Preah Sihanouk high school and Hun Sen Veal Rinh high school (ADB, 2018). Therefore, 12 secondary resource schools are finally selected as research sample and teachers of each of the 12 schools in the 6 randomly selected provinces are the sample of the study, and school principal of each of the 12 sampled schools will be solicited through phone by a researcher to schedule a time for administration of surveys to schools.

In a research study, sample is a group of individuals, items, or events that represent the characteristics of the larger group, known as population, from which the sample is drawn (Gay et al., 2009). The reason for sampling is to prevent researchers from having to collect data from the entire population (Cohen et al., 2007). This research is based on a random 'probability' sample where this researcher generalized from the results since Cohen et al., (2007) indicated that probability sampling is helpful as it seeks to be representative of the population. The researcher decides to use simple sampling to choose three regions. Then two provinces will be randomly chosen from each educational region. Teachers in resource school(s) in the selected provinces were chosen for data collection.

The participants for this design were randomly selected to respond the survey questionnaire. The researcher plans to choose at least 10 participants per item. The total of observed variables or items for the present study is 51. The researcher plans to

choose more 10 participants per item, so there will be larger than 510 participants in the study. The percentages of males and females are reported in chapter 4. Demographic information of the respondents such as qualification, work experience and mean age were calculated. The copies of research questions delivered to respondents and the returned responses were also reported.

Table 3.1: Respondent Information by Region and Province

No.	Regions	Provinces	Numbers of schools	Surveyed Schools
1.	Central Plain	Phnom Penh, and Takeo	4	4
2.	Tonle Sap	Kompong Thom, and Kampong Chhnag	4	4
3.	Coastal and Sea	Kampot, and Preah Siharnuk	4	4
Total		6	12	12

3.3 Research Instruments

There are three types of instruments in the present studies, namely (1) instructional leadership, (2) teacher collective efficacy and (3) teacher commitment. The researcher used a two-stage process for developing and refining the instruments designed to measure Instructional Leadership, Teacher Commitment, and Collective Efficacy. Initially, the instruments included several sub-constructs based on theoretical frameworks and existing literature. However, following Exploratory Factor Analysis (EFA), the instruments were refined to ensure validity and reliability for use in subsequent analyses, including Structural Equation Modeling (SEM) and Multiple Regression Analysis.

The initial instrument leadership tool is adapted from (Hallinger, & Lee, 2013) which consisted of three sub- constructs (1) creating school mission, school learning climate, and managing instructional program. There are 5 initial items for creating school mission, 6 for managing instructional program, and 9 for developing positive learning climate. The teacher commitment tool was adapted from (Kushman, 1995; Nir, 2002; Brookover et al., 1979; Mowday et al., 1979), which consist of (1) teacher

commitment to school, commitment to teaching and to students. There are 19 initial items for the three sub-constructs of TC. Finally, initial instrument of collective efficacy was adapted from (Goddard, 2015; Goddard et al., 2017) with two sub-constructs including group competency and task difficulty. There are 12 initial items for the two sub-constructs of TCE.

After the initial data collection from the field test, an Exploratory Factor Analysis (EFA) was conducted to assess the construct validity of the instruments. The EFA results indicated whether each sub-construct met the required psychometric criteria. Sub-constructs that did not meet these criteria were excluded from further analysis. Specifically, they were removed from the constructs of instructional leadership, teacher commitment, or teacher collective efficacy. These exclusions were based on low factor loadings and insufficient internal consistency—both of which are essential for valid measurement in subsequent analyses, including confirmatory factor analysis, multiple regression, and structural equation modeling.

Following the EFA, the instruments were refined and validated. Valid sub-constructs of instructional leadership and teacher collective efficacy, as well as the retained sub-constructs of teacher commitment, were identified. Ultimately, the teacher collective efficacy scale was confirmed. The new factor-analyzed version of the instrument was then modified by the researcher to align with the EFA findings and to better fit the Cambodian context (see Appendix G).

In conclusion, the original instruments for Instructional Leadership (IL), Teacher Collective Efficacy (TCE), and Teacher Commitment (TC) were employed to address the first research question: “how can initial tools of instructional leadership, teacher collective efficacy, and teacher commitment be validated in Cambodian context using FAA and CFA?” The refined and validated instruments for these variables were then used to explore the remaining research questions, including: examining teachers’ perceptions of the main variables, investigating regional variations in perceptions, analyzing relationships among the variables, and conducting Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM).

3.3.1 The Original Construction and Development of the IL Instruments

Hallinger et al. (2015) stated that up until the early 1980s, there were no validated tools available for measuring instructional leadership, either in research or practice (Bossert et al., 1982; Bridges, 1982; Erickson, 1979; Murphy et al., 1983). The articulation of the PIMRS conceptual framework (Hallinger, 1983; Hallinger &

Murphy, 1985) laid the foundation for the development of instruments capable of reliably measuring instructional leadership. Such tools were a necessary prerequisite for scholars to effectively address the challenges identified in contemporary reviews of the literature (e.g., Bridges, 1982; Erickson, 1979; Haller, 1979).

Bossert et al., (1982) conceptualized instructional leadership as actions and strategies employed by principals that are intended to impact the school's instructional organization and learning climate with the goals of improving learning outcomes for students. They chose the term "instructional management" because they inferred that this role of the principal revolved around managerial functions concerned with the coordination and control of curriculum and instruction (e.g., Cohen and Miller 1980). The principal instructional management framework included organizational context that recognized that leadership is influenced by personal characteristics, district characteristics (its size) and community characteristics with two dimensions including school climate, and instructional organization (Bossert et al., 1982).

Another early attempt to provide a clear definition of instructional leadership was represented in the work of Hallinger and Murphy (Hallinger et al. 1983; Hallinger & Murphy 1985; Murphy et al. 1983). Our conceptual framework incorporated three dimensions: Defines the School Mission, Manages the Instructional Program, and Develops a Positive School Learning Climate (Hallinger 1983; Hallinger et al. 1983; Hallinger & Murphy 1985). Three instruments were used. Principal Instructional Leadership (PIL) was measured by the 50 item version of the Principal Instructional Management Rating Scale-Teacher Form (PIMRS; Hallinger, 1982, 1990, 2015).

Measures of instructional leadership employed in the present study were adapted from prior study which employed the PIMRS-Thai Form (Hallinger, 1982/ 1994) consisting of total of 20 items. The Principal Instructional Management Rating Scale (Hallinger, 1982/1994) was developed as a tool designed to enable accurate measurement of instructional leadership practice. The instrument was based upon Hallinger and Murphy's (1985) conceptual framework with three dimensions as comprising the instructional leadership role of the principal: Defining the School's Mission, Managing the Instructional Program, and Promoting a Positive School Learning Climate. The instrument has been employed by school systems as well as by more than 200 researchers in published studies and doctoral focusing on principal instructional leadership (Hallinger, 2011a). Each item on the PIMRS is rated on a Likert-type scale ranging from (1) almost never to (5) almost always.

3.3.2 The Original Construction and Development of TCE

The collective teacher efficacy instrument used in the previous studies were developed by adapting the Gibson and Dembo (1984) instrument to adhere to the theoretical model developed by Tschannen-Moran; Hoy. and Hoy (1998). The 30 items of collective teacher efficacy instrument was originally developed by Gibson and Dembo (1984), and based on analysis of internal consistency reliabilities, they found that only 16 of the original 30 items yielded significant loadings on two factor (personal teaching efficacy and teaching efficacy) which corresponded to Bandura's two-factor theoretical model of collective efficacy. In order to develop a collective teacher efficacy instrument that contained all of the wordings outlined above, Goddard (1998), who constantly developed measure of teacher collective efficacy, began by analyzing the original Gibson and Dembo instrument. Goddard (1998) found that the 16 item on the original Gibson and Dembo instrument contained only positive group competence and negative task difficulty. In response, Goddard (1998) added several items assessing the negative competency and positive task analysis. Next, Goddard (2000) used the 16-item version of the Gibson and Dembo instrument as a beginning point in developing their scale, adapting the items to adhere to the four categories described as (GC+, GC-, TD+, and TD-) with total 21 items. In order to represent all four types in their model, they had to create negatively worded items to address competence and positively worded items to address task.

The measure of collective teacher efficacy comprising of positive and negative group competence, positive and negative task analysis/difficulty was originally adapted from Goddard (2000) who deleted items with low loading and added new three additional group competence items and a few items to task analysis. Next, another study on the roles of collective efficacy beliefs in support of student learning by Goddard et al. (2015) also measured collective efficacy beliefs using a 12-item short form which was adapted from Goddard (2000), but they subjected three parcels constructed from the 12 collective efficacy items (6 group competence items; 3 positively worded task analysis items; 3 negatively worded task analysis items) to confirmatory factor analysis using Mplus. They employed Cronbach's alpha as a measure of internal consistency. They constructed school collective efficacy scores as the mean of the 12 aggregated item scores. They used these scores in all subsequent analyses. Next, they calculated descriptive statistics for all of our Level 1 and Level 2 variables and confirmed that each continuous variable was approximately normally

distributed and suitable for use in regression analysis. Moreover, Similar to Goddard et al. (2015), Goddard et al., (2017) examined the collective efficacy measure using Mplus to perform confirmatory factor analysis (CFA) on three observed parcels comprised of mean scores for 1) group competence indicators of collective efficacy, 2) positively worded task analysis items, and 3) negatively worded task analysis items. The analysis confirmed a single factor with strong loadings of .89, .88 and .85, respectively.

3.3.3 The Original Construction and Development of TC

Measures of organizational commitment are as diverse as the definitions. Most of these measures consist of from two- to four-item scales that are created on an a priori basis and for which little or no validity and reliability data are presented (Mowday et al., 1979). For example, Grusky's (1966) scale used four items, consisting of company seniority, identification with the company, attitudes toward company administrators, and general attitudes toward the company. In addition to this, Hrebiniak and Alutto (1972) used a four-item scale which asked in essence what it would take for the employee to leave the organization. Spearman-Brown reliability was reported at .79 but no additional validity or reliability data were presented. Similar procedures were employed by (Lee, 1971; Sheldon, 1971; Brown, 1969; Gouldner, 1960; Hall et al. , 1970; Hall & Schneider, 1972; Buchanan ,1974). Kanter (1968. 1977) used a 36-item scale, but failed to report either validity or reliability data. Finally, Wiener and Gechman (1977) asked employees to keep diaries of voluntary work-related activities on personal time, using a decoding procedure to estimate commitment. Mowday et al., (1997) developed 15 items for organizational commitment which appeared to tap the three aspects of their definitions of commitment including (1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization.

Commitment to teaching work is formed with Morrow's approach (1983, p. 492) which maintains the occupied level of an individual's daily life. Commitment to teaching work is the physical and psychological occupied level of a teacher in his/her daily life. Commitment to teaching work was formulated with 8 items in the direction of Kanungo's job involvement (1982, P. 344), that was depended on Lodahl and Kejner's scale (1965).

The initial items on job involvement was selected and reduced by using the scale discrimination technique of Edwards and Kilpatrick (1948). The initial 110 statements

potentially related to job involvement were collected from interview protocols. Then elimination of duplications reduced the list to 87 items. Next, the items were submitted to 11 psychologists, 3 sociologists, and 8 second-year graduates to judge. Mean, medians, standard deviations, and Q values of their rating were calculated for each of the 87 items. Q value is a statistic employed to assess how well each item in the scale discriminates or differentiates between various levels of the construct. 47 items were discarded using these statistics and the other 40 items retained had low Q values and tended to have medians more toward the ends of the distributions (Lodahl & Kejner, 1965). They were developing the job involvement scale, and gathering evidence on the reliability and validity of the scale. Exploratory factor analysis was employed and they found that 40 items were separate into 11 factors but only the first 7 of these had loading greater than .30. And the items with four highest loadings will be presented for the first five factors (the sixth and seventh factors have substantially zero loadings on total job-involvement score).

Kushman (1995) adapted the 9 items of commitment to student learning measuring (a) teacher sense of efficacy using items from Ashton and Webb (1986), (b) teacher expectations for short-term student success, with some items adapted from Brookover et al., (1979), and (c) teacher willingness to exert effort for helping low-achieving students succeed. Teacher commitment to students was assessed using a 2-factor scale. One 4-item subset was designed to evaluate teacher commitment to children's academic achievements and a second 4-item subset was designed to evaluate teacher commitment to the social integration of children in the classroom. The reliability levels for each of the subsets were evaluated in a pilot study (Nir, 2002).

3.3.4 Breakdown of the Survey Questionnaire of the Initial Constructs

Table 3.2 provides a thorough examination of the survey questions, classifying the categories and dimensions under evaluation. The table presents three primary concepts: instructional leadership with its sub-components (create school mission, manage instructional program and develop positive school learning climate), teachers' collective efficacy (group competency and task difficulty) and teacher commitment (commitment to school, commitment to teaching and commitment to students). Each concept is subdivided into distinct dimensions, with the number of related items in the questionnaire specified for each dimension. There are total initial 51 items for IOC, EFA and CFA analysis.

Table 3.2: Breakdown of the Survey Questionnaire Based Initial Constructs

Constructs	Dimensions	No. of Items in the Questionnaire	Total Items
Instructional Leadership	Creating a school mission	SM1, SM2, SM3, SM4, SM5	5
	Managing the Instructional Program	MIP6, MIP7, MIP8, MIP9, MIP10, MIP11	6
	Developing a positive school learning climate	PLC12, PLC13, PLC14, PLC15, PLC16, PLC17, PLC18, PLC19, PLC20	9
Teachers' Collective Efficacy	Group Competency	GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8, GC9, GC10, GC11, GC12	6
	Task Difficulties (positive)	TD4, TD5, TD17, TD31, TD32, TD42,	6
Commitment	Commitment to school	TCO1, TCO2, TCO3, TCO4, TCO5, TCO6, TCO7	7
	Commitment to teaching	TCS8, TCS9, TCS10, TCS11, TCS12, TCS13	6
	Commitment to students	TCT14, TCT15, TCT16, TCT17, TCT18, TCT19	6
Total items = 51			

(Note: See Appendix E)

The concept of instructional leadership encompasses three dimensions: creating a school mission consisting of 5 items; managing the instructional program consisting of 6 items; and developing a positive school learning climate consisting of 9 items. In all, there are 20 items. Teachers' collective efficacy is assessed using two dimensions: group competency with 6 items; task difficulty with 6 items, for a total of 12 items. Three dimensions evaluate teacher commitment: commitment to school with 7 items, commitment to teaching with 6 items, and commitment to students with 6 items. In all, there are 19 items used to evaluate a teacher's commitment. The survey questionnaire comprises a total of 51 items.

For numerous reasons, it is crucial to conduct a thorough analysis of the survey questionnaire, as outlined in Table 3.2. Firstly, it ensures transparency by clearly

defining and implementing the constructs and dimensions, ensuring comprehensive measurement of every area of research. This degree of specificity helps to verify the study design by demonstrating that the survey encompasses all relevant variables thoroughly. Moreover, this breakdown enables a precise comprehension of the questionnaire's framework, hence aiding the analysis and interpretation of the results. Table 3.2 ensures the balance and thorough coverage of each construct in the questionnaire by stating the allocation of items to each dimension. This enhances the reliability and validity of the study.

3.3.5 Structure and Scoring of the Research Questionnaire

The purpose of this study is (1) to validate the scales of instructional leadership, collective efficacy and teacher commitment, (2) to examine the level of Instructional leadership of school principal and teacher collective efficacy as well as teacher commitment perceived by teachers, (3) to compare teachers' perceptions regarding instructional leadership (creating school mission, managing instructional program and developing positive school learning climate), teacher collective efficacy as well as teacher commitment in different regions, (4) to examine the relationship between instructional leadership, teacher collective efficacy and teacher commitment, (5) to investigate how instructional leadership is associated with teacher collective efficacy and teacher commitment. To meet these research objectives, the researcher needs to collect the teachers' perceptions of instructional leadership of school principals, collective efficacy and commitment by providing them with clear instruction for completing the questionnaire and their responses are kept confidential and used for research purposes only. The questionnaire is scaled items using 5 Likert scales with clear and simple language. The questionnaire is biased-free and directly relevant to the research objectives. The questionnaire of each sub-construct and scoring as follows:

3.3.5.1 Structure and Scoring of the Initial IL Instruments

Measure of instructional leadership is adapted from prior study which employed the PIMRS-Thai Form (Hallinger, 1982/ 1994). The current study used only 20 items of instructional leadership adapted from (Hallinger, & Lee, 2013) which were chosen from 50 items version of the Principal Instructional Management Rating Scale-Teacher Form (PIMRS; Hallinger, 1982, 1990). Instructional leadership will be assessed through secondary resource school teachers' perceptions of principal's creating a school mission (5 items, eg. "My school principal develops a focused annual school goals"), managing instructional program (6 items, e.g., "My school principal clearly appoints a

teacher who is responsible for coordinating the curriculum across grade levels.”), and developing a positive school learning climate (9 items, e.g., “My school principle requires teachers to reinforce superior performance in staff meetings, newsletters or memos”). In all the sub-constructs, secondary resource school teachers have to rate each item on a 5- point Likert scale, ranging from 1 (“almost never”) to 5 (“almost always”).

3.3.5.2 Structure and Scoring of the Initial TCE Instruments

There are two key elements in the development of collective teaching efficacy: Task difficulties and group competence. The former includes the abilities and motivations of students, the availability of instructional materials, the presence of community resources and constraints, and the appropriateness of the school’s physical facilities. The latter is group competences which include the faculty’s teaching skills, methods, training, and expertise. Judgments of teaching competence might also include positive faculty beliefs in the ability of the children in their school to succeed (Goddard, 2000). The items of teacher competencies also focused on instruction, controlling student behavior, addressing students’ needs, and creating a safe environment (Skaalvik & Skaalvik, 2007). Measures of teacher collective efficacy are adapted from prior studies Gibson & Dembo, 1984; Goddard, 1998; Goddard, 2000; Goddard, 2015; Goddard et al., 2017; Skaalvik & Skaalvik, 2007; Tschannen-Moran, & Hoy, 2001). The theoretical elements of collective teacher efficacy, group competence and task difficulties, are highly interrelated and therefore should not be separated to form subscales for each dimension. Factor analyses of both pilot study and final study data support that a single measure of collective teacher efficacy combining both dimensions is appropriate (Goddard, 1998; Goddard, Hoy, & Hoy, 2000). Likewise, all studies on teacher collective efficacy combine the two sub-dimensions into a single measure of collective teacher efficacy (e.g. Goddard, Hoy, & Hoy, 2000; Goddar et al., 2015; Goddard et al., 2017; Skaalvik, & Skaalvik, 2010). In the current study, teacher collective efficacy is assessed through resource school teachers’ perception of group competencies (6 items, e.g., “We teachers in this school can get even the most difficult pupils engaged in their schoolwork”), task difficulties (6 items, e.g., “The students come to school ready to learn”) (see the appendix E). In all the sub-constructs, secondary resource school teachers have to rate each item on a 5- point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

3.3.5.3 Structure and Scoring of the Initial TC Instruments

The items of teacher commitment developed by Thien and Razak (2013) who combined and selected total items with 3 dimensions including commitment to students, commitment to school, and commitment to teaching. There were 6 items for commitment to students adapted from different scholars. For example “it is my responsibility to ensure good social relations among my student” (Kushman, 1995; Nir, 2002; Brookover et al., 1979). And there were 6 items for commitment to teaching adapted from different authors. For example “I used to be more ambitious about my work than I am now” (Kanugo, 1982; Lodahl and Kejner, 1965; Thien & Razak, 2014). Furthermore, there were 7 items for commitment to school such as “I talk up this school to my friends as a great school to work for” adapted from Mowday et al., (1979). Teacher commitment is assessed through secondary resource school teachers commit to school, to teaching and to students. In all the sub-constructs, resource school teachers have to rate each item on a 5- point Likert scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”).

3.3.6 The Translation Techniques of the Research Questionnaire

The survey questionnaire measuring each sub-construct of instructional leadership (defining the school’s mission, managing instructional program, and promoting a positive school learning climate), and of teacher collective efficacy (group competencies and task difficulties), as well as teacher commitment (i.e., teacher commitment to school, to students, and teacher commitment to teaching) is developed based on the translation and back-translation technique of Behling and Law (2000). First, the original sub-constructs in English are adapted by the researcher. Then, they are translated into Khmer language by two bilingual Khmer researchers. Next, using the Khmer translated version, we translate the sub-constructs back into English. After we compared the adapted versions to see whether each item in each sub-construct can match the initial meaning, the questionnaire in Khmer language was finally administered to teachers at 12 secondary resource schools to evaluate the appropriateness of each item.

3.3.7 Pilot Study

Before examining the main research objective—how instructional leadership (IL) affects teacher commitment through teacher collective efficacy—a pilot study is conducted (e.g. Goddard, 1998). The purpose of previous pilot study was to determine whether the components of teacher commitment, collective efficacy, and instructional

leadership match their intended theoretical constructs. Previous research has primarily focused on Western contexts for teacher commitment (Dumay & Galand, 2012; Louis, 1998; Nir, 2002; Park, 2005; Somech & Bogler, 2002) and instructional leadership scales are widely used in Western countries (Zheng et al., 2019), but limited use in Asian countries (Hallinger & Walker, 2017; Wei et al., 2018) while collective efficacy scales were originally developed in the U.S (Goddard, 1998). Therefore, to ensure if these constructs are valid and reliable or not in different contexts or populations, exploratory factor analysis (EFA) was conducted (Costello & Osborne, 2005; Tabachnick & Fidell, 2013). In short, several studies (e.g. Goddard, 1998) conducted EFA in their pilot study. However, in the current study, the EFA result was analyzed and reported in chapter 4.

In order to validate the instrument of each construct above, there are some steps to be measured in this pilot study (1) preliminary review (2) field test, and (3) pilot study (Goddard, 1998). The preliminary steps were taken to ensure that the items selected for inclusion in the survey adequately represent the content of collective teacher efficacy, instructional leadership and teacher commitment. And they all were reviewed by a panel of three experts. Each reviewer received the copies of study questionnaires including collective teacher efficacy, instructional leadership, and teacher commitment and was asked to judge whether the items adequately represented the dimensions of main constructs

First, three experts comprehensively reviewed and evaluated all the items by comparing them with the definitions, dimensions, and theoretical underpinnings of the three constructs—instructional leadership, teacher collective efficacy, and teacher commitment. This involved a broad comparison between the constructs and conceptual clarity and theoretical alignment. They accurately reviewed the meaning of each survey item, providing suggestions to refine the wording and structure. They were required to rate the item (+1) for congruence, 0 for unclear item, and -1 for incongruence. Mostly they rated them (+1), and only 5 items were rated unclear. The researcher asked experts and supervisors for comments of the unclear items. In fact, the experts revised certain phrases to ensure that each item comprehensively measured and reflected all relevant facets of the constructs of instructional leadership, teacher collective efficacy, and teacher commitment. This revision aimed to guarantee that the items accurately represented the core elements of each construct while avoiding potential misunderstanding. In particular, the experts made several adjustments to improve the

clarity and precision of the items, ensuring they were straightforward and unambiguous. After the experts' recommendations, the survey items were significantly improved, becoming clearer, more appropriate, and more precise.

After the revisions based on feedback from the experts, the instrument displayed (Appendix E) was subjected to the field test in which six teachers were asked to give feedback regarding the clarity of the instructions, length of the instrument, appropriateness of the questions, and any other responses they had to the instrument. The feedback of these teachers was intended to provide another opportunity to revise the survey instrument before conducting the pilot study. After the field test, the revised collective teacher efficacy instrument displayed in Appendix E was administered to teachers in schools. The final step of pilot study is discussed in the following section.

3.3.7.1 Piloting the Research Questionnaire

Before collecting the data, the researcher conducted the pilot survey study in a similar context and similar demographic as it is essential for a quantitative research study (Mat Roni et al., 2020). Because they have similar characteristic, a group of 35 teachers, both males and females from a secondary resource school, participated in pilot study. This pilot was to establish the content reliability of score on instruments and to revise the final instruments. Consequently, the reliability (Cronbach alpha) of most study variables should be higher than 0.7. The Cronbach' alpha value of the sub-constructs is reported the table below (also see Appendix E).

Table 3.3: Pilot Study: Reliability of Variables

Variables	Items	Reliability (Cronbach's alpha)
Create a school Mission	5	0.87
Manage the instructional program	6	0.85
Develop a positive school learning climate	9	0.89
Group competencies	6	0.86
Task difficulties	6	0.60
Commitment to school	7	0.93
Commitment to students	6	0.87
Commitment to teaching	6	0.88

3.3.7.2 Validity of the Research Questionnaire

Middleton (2023) explains that validity in research refers to how accurately a method measures what it is intended to measure. The article emphasizes the importance of aligning research findings with the actual characteristics or variables under investigation, free from systematic error. Additionally, it distinguishes between validity and reliability, noting that both are crucial for ensuring credible and trustworthy research. Hair et al. (2014) define validity as the degree to which the measure(s) define the concepts, while reliability is the degree to which they are consistent. The concepts of validity are similar: it means showing that an instrument that it intends to measure and that an account accurately describes “those features that it is intended to describe, explain, or theorize” (Winter, 2000, p. 1). Many people have different ideas about what validity means. It is said how well the theories and evidence used to interpret data support those ideas (Ary et al., 2002, p. 267). According to Cohen et al. (2018), there are numerous sorts of validity, such as face validity, content validity, construct validity, and discriminant validity. The article discusses these categories of validity. According to Carmines and Zeller (1979), the instrument must demonstrate that it covers the domain or objects that it claims to cover in a manner that is both fair and complete in order to demonstrate that it exhibits content validity (p. 20). The researcher in this study makes an effort to select items for careful sampling by employing a short form instrument of IL. Additionally, the researcher makes an effort to reduce the dimensions of TCE and TC. This is due to the fact that if the questionnaire is too long, the respondents would spend a significant amount of time completing it, which will have a negative impact on the results (Cohen et al., 2018).

The three most widely accepted forms of validity are convergent, discriminant, and nomological validity (Hair et al., 2014). To validate the sub-constructs in the secondary resource schools in Cambodia, confirmatory factor analysis (CFA) was conducted. Before the CFA, the researcher checked for normal distribution and multicollinearity. The normal distribution of the data being analyzed was measured by the skewness and kurtosis of each item (Cohen et al., 2018; Hair et al., 2019). Normally, the Skewness and kurtosis values of normal distribution range between -1 and $+1$ and between -1.96 and $+1.96$, respectively (Hair et al., 2019). During the CFA, construct validity for each sub-construct was examined. To ensure construct validity, convergent and discriminant validities were assessed by calculating and comparing the average variance extracted (AVE), the maximum shared variance (MSV), and the average

shared variance (ASV) for each sub-construct. The AVE should be 0.50 or higher for adequate convergent validity, which means that a group of measured variables or items share a high proportion of variance in the same construct, and the AVE should be greater than the MSV and ASV for acceptable discriminant validity, which means that one construct is distinct from other constructs (Hair et al., 2019). The present study reported the value of the AVEs for sub-constructs and each AVE for each sub-construct was compared with its MSV and ASV. Finally, the numbers of items with factor loading from output of the standardized factor loading with lower than 0.50 removed. There is one CFA in this study and the CFA results for the model of the relationships between instructional leadership, teacher collective efficacy, and teacher commitment showed how the values of the model fits the empirical data with the criteria determined by Hair et al., (2019) including the value of degree of freedom (χ^2), p-value, CFI, TLI, SRMR, and RMSEA were calculated using M-plus software program.

3.3.7.3 Reliability of the Research Questionnaire

Reliability refers to the consistency of the scores obtained- how consistent they are for each individual item from one administration of an instrument to another and from one set of items to another (Fraekel & Wallen, 2008). There are 5 types of reliability including test-retest reliability, equivalence reliability, equivalence and stability, internal consistency reliability and scorer reliability (Gray et al., 2009). In this present study, the researcher examines the internal consistency reliability which comprises of two measures- Cronbach's alpha, which provide an estimate of the reliability based on the inter-correlations of the observed indicator variables, and the other measure of internal consistency reliability is composite reliability which accounts for different outer loadings of the indicator variables and is calculated using statistical formula (Hair et al., 2019).

Before the CFA, the researcher checked for reliability by measuring Cronbach's Alpha of each item (Cohen et al., 2018; Hair et al., 2019). During the CFA, we will check for construct or composite reliability of each sub-construct. The measures of Cronbach's Alpha and composite reliability were reported. The Cronbach's alpha values for creating school mission, and developing a positive school learning climate is calculated and reported. The construct reliability value, AVE and factor loadings for the sub-construct are calculated and reported as well as shown in tables in chapter 4. The Cronbach's alpha values, the construct reliability values, AVE and factor loadings for

all sub-constructs of group competencies and for all sub-construct of teacher commitment are similarly calculated and reported in Chapter 4.

3.4 Data Collection Procedures

To gain a comprehensive understanding of the leadership behaviors of secondary resource schools and teacher collective efficacy and teacher commitment in the context of Cambodian education, the researcher collected data from teachers, using three primary instruments: instructional leadership, teacher collective efficacy, and teacher commitment. The survey aimed to capture the leadership practices of school directors at the sampled schools, focusing on factors that their leadership approaches may influence teacher behaviors such as teacher collective efficacy and teacher commitment. Prior to the main survey, a pilot test of the instrument was conducted to pretest the tool for the quantitative research. The following subsections outline the procedures for both the pilot test and the main survey, with detailed descriptions of each data collection process provided below.

3.5 Data Analysis and Statistic Procedure

3.5.1 Descriptive Statistics

Descriptive statistics include frequencies, measure of standard deviation, measures of central tendency (means, modes, and medians), crosstabulations and standardized scores (Cohen et al., 2018). Descriptive statistics is conducted using the Statistical Package for Social Sciences (SPSS) version 23 to perform means and standard deviations along with reliability statistics and correlations for sub-constructs of IL (creating a school mission, managing the instructional program, and developing a positive school learning climate); teacher collective efficacy (Group competencies, Task difficulties), and of teacher commitment (commitment to school, commitment to students and to teaching) were calculated and reported. In addition to this, Kurtosis and Skewness of these sub-constructs were also calculated and reported.

3.5.2 Inferential Statistics

3.5.2.1 Exploratory Factor Analysis

EFA is widely used in the early stages of instrument development to assess whether the items in a questionnaire align with the intended constructs. If some items do not load well on the expected factors, they can be modified or removed before the main study (Fabrigar et al., 1999). Although a pilot study may not provide definitive answers,

using EFA in the initial stages can help determine whether the constructs being measured make sense and whether the instrument has reasonable construct validity (DeVellis, 2016). EFA also plays a critical role in refining a scale by suggesting which items should be retained, revised, or discarded, thereby improving the overall factor structure and ensuring a more reliable final instrument (Costello & Osborne, 2005). In the first stage of study, Exploratory Factor Analysis (EFA) is used to identify how well the items of each variable group together.

3.5.2.2. One-Way ANOVA

To achieve one of the research objectives which attempt to identify the differences of resource schools in three regions in relations to the research variables: perceptions of instructional leadership (creating a school mission, managing the instructional program, and developing positive school learning climate), teacher collective efficacy (group competencies, task difficulties) and teacher commitment (to students, school and to teaching). To answer the third research question of the comparative research design, the Statistical Package for Social Sciences (SPSS) version 23 is used to examine the mean difference of the sub-components of instructional leadership, teacher collective efficacy and teacher commitment between schools in different educational areas, One-Way ANOVA is appropriately employed to calculate the mean differences. If the p-value between groups is significant, Bonferroni Post hoc is used to find which types of regions are different from which (Cohen et al., 2018).

3.5.2.3 Correlation Analysis

The coefficient of correlation tells us about the relations between two variables and there are three levels of correlations between the variables. Very low correlation ranges from 0.20-0.35; the medium correlation ranges from 0.35 to 0.65 and from 0.65 to 0.85 is high (Cohen et al., 2018). The Statistical Package for Social Sciences (SPSS) version 23 is used to examine the values of Pearson correlation for sub-constructions of instructional leadership, teacher collective efficacy and teacher commitment.

3.5.2.4 Multiple Regression Analysis

Multiple regression analysis is employed to support one of the current research objectives that attempts to examine the effects of instructional leadership and control or demographic variables (teaching experiences, level of education, ages) on teacher collective efficacy and teacher commitment. The combination of independent variable (instructional leadership) and demographic variables to predict teacher collective efficacy and teacher commitment were statistically estimated. The adjusted R^2 values

were examined to indicate the percentage of variances in teacher collective efficacy and teacher commitment explained by demographic model and instructional leadership.

3.5.2.5 Confirmatory Factor Analysis

Confirmatory Factor analysis was conducted to examine the construct validity of those components through convergent and discriminant variables. Convergent validity was checked through standardized factor loadings, construct reliability (CR), and average variance extracted (AVE) (Hair et al., 2019). Discriminant validity is checked by comparing the square root of the AVE of each latent construct with the correlation between that construct and other latent constructs in the model (Fornell & Larcker, 1981). CFA was conducted using Mplus 7.11 with the maximum likelihood robust method, which is appropriate for a non-normal data set (Lei & Wu, 2012). Model fit was evaluated using these criteria: chi-square (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Standardized Root Mean Squared Residual (SRMR), and Root Mean Squared Error of Approximation (RMSEA) (Hair et al., 2019; Kline, 2016). When there are more than 250 participants and 30 or more observed variables, the characteristics of model fit are chi-square with significant *p* values, CFI or TLI of above 0.92, SRMR of 0.08 or less with CFI above 0.92, and RMSEA of less than 0.07 with CFI of 0.92 or higher (Hair et al., 2019). As Kline (2016) suggests, it is excellent fit when RMSEA is less than 0.05 and it is acceptable fit when RMSEA is below 0.08.

3.5.2.6 Structural Equation Modeling Analysis

To answer the main research questions of the correlational design, two types of statistical analyses are chosen. First, correlation analysis is conducted to explore the relationship between latent variables or sub-constructs of instructional leadership, teaching collective efficacy, and teacher commitment. Second, SEM is conducted to examine structural associations between aspects of instructional leadership and aspects of teacher collective efficacy, and teacher commitment. SEM was the best statistical technique for this correlational design as it can empirically test a theoretical model by taking both the measurement and the structural models into one analysis (Hair et al., 2019). In fact, the process of testing SEM involves a measurement part, which links a latent construct to observed or measured variables, and a structural part, which links one latent construct to the other latent constructs in the model (Hair et al., 2014; Sinharay, 2010). Moreover, SEM takes into account for the estimates of measurement error for both exogenous (independent) and endogenous (dependent) variables (Byrne, 2012). SEM also permits the estimation of latent variables from observed variables, and thus

the measurement errors are all included into a simultaneous analysis (Byrne, 2012).

In the present study, model fit is judged based on values of chi-square (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Standardized Root Mean Squared Residual (SRMR), and Root Mean Squared Error of Approximation (RMSEA) (Hair et al., 2019; Hu & Bentler, 1999; Kline, 2016). As recommended by Hair et al. (2019), with sample sizes of more than 250 and measured variables of 30 or more, the characteristics of model fit are chi-square with significant p values, CFI or TLI of above 0.92, SRMR of 0.08 or less with CFI above 0.92, and RMSEA of less than 0.07 with CFI of 0.92 or higher. Finally, through estimation of structural equation modeling via M plus analytic program, the presentation of the significant direct and indirect effects of instructional leadership on teacher collective efficacy and teacher commitment was shown.

3.6 Ethical Consideration

The researcher commits to maintaining the highest ethical standards during the data gathering phase. Before entering the research fields, the researcher would tell them about the objectives, methods, potential risks, and benefits of the study and then give the participants informed permission. Every participant's privacy and confidentiality are the researcher's top priorities. Only permitted personnel were able to access anonymous data, which was securely stored. The researcher ensures that the personally identifiable data of the participant is collected and kept. The researcher promises to keep the potential risks of this research to a minimum and carefully monitor them. The researcher explained to the participants the possible advantages of participating as well as precautions to reduce hazards. There is no charge associated with participation, and participants have the freedom to leave the study at any moment.

In summary, chapter 3 provides a detailed account of the comprehensive methodology, objectives, methods, and framework employed in the study. It begins with an introduction to the study design, outlining the methodological framework that guided the research. The chapter then offers a clear explanation of the research objectives, specifying the aims and questions the study seeks to address. The Population and Sampling Techniques section follows, describing the targeted population and sampling methods used to ensure a representative and relevant sample. Detailed information about the study participants, including their demographics and selection process, is provided in the participants section. The dependent and independent variables pertinent

to the study are identified and explained in the research variables section.

The chapter further explores the research tools used to assess various constructs, including instructional leadership (IL), teacher collective efficacy (TCE), and teacher commitment (TC). It discusses the relevance and application of each tool in the study. The pilot study section plays a crucial role in this research, offering insights into the psychometric properties through exploratory factor analysis (EFA). This section also outlines the preliminary testing conducted to evaluate the validity and reliability of the instruments, with subsections detailing tool validity and reliability, providing data on the accuracy and consistency of the measurements.

The Data Analyses section explains the methods used to analyze the data, while the data collection procedures section outlines the processes for obtaining the data. The Researcher's Position section highlights the influence of the researcher's perspective and any potential biases on the research process. Overall, this chapter offers a comprehensive explanation of the research methodology, ensuring a rigorous and transparent approach to achieve the study's objectives.

CHAPTER 4

FINDINGS

This chapter provides a thorough analysis of the data collected to explore the validity of instructional leadership, teacher collective efficacy, and teacher commitment. Then it examines the level of directors' instructional leadership (IL), teacher collective efficacy (TCE) and teacher commitment (TC). Subsequently, causal-comparative analysis was employed to compare the levels of IL, TCE and TC across three different regions around Cambodia. Following this, correlation and multiple regression analyses were conducted to assess the relationships among the variables and direct effects of IL - creating a school mission, developing a positive school learning climate, and teacher collective efficacy on teacher commitment. Additionally, SEM was applied to investigate the complex relationships among the independent variable (IL), mediating variable (TCE), and dependent variables (TCO and TCT).

The findings of this current study present the emerged factors from the initial constructs along with loadings of each items. Additionally, the explanations of each deletion of the sub-components are provided. The convergent and discriminant validities are also reports. The levels of teachers' perceptions toward school directors' instructional leadership, their own collective efficacy and their commitment, including the grand means are also extensively reported. Teachers' perceptions of their school directors' instructional leadership, their own commitment, and their collective efficacy across three different regions around Cambodia are compared based on One-Way ANOVA analysis. Furthermore, Person correlation is employed to report the relationships among the variables using correlation coefficients. The direct effects of two dimensions of IL on sub-components of TC based on multiple regressions analyses are reported. The direct and indirect effects of IL on TC through TCE as a mediating variable are reported based on analysis of structural equation modeling (SEM).

4.1 Results of Demographic Information

To provide a more detailed description of the surveyed samples, demographic information related to leadership behaviors was collected using a demographic questionnaire. This form was completed by teachers at each participating school (see Table 4.1). The demographic data included respondents' gender, age group, educational background, and work experience. The survey yielded responses from a total of 619

teachers, all of whom (100% of teachers) submitted valid data. The valid responses were then organized and prepared for statistical analysis. A summary of the demographic characteristics of the valid respondents is presented in Table 4.1.

Table 4.1: Participants' Demographic Information

Variables	Responses	Number	Percentage
Types of Regions	Teachers from schools in Tole Sap	180	29.1%
	Teachers from schools in Central Plain	253	40.9%
	Teachers from schools Coastal and Sea	186	30.0%
Gender	Male	356	57.50%
	Female	263	42.50%
Age range	25 years or below	11	1.80%
	26-35 years	103	16.60%
	36-45 years	267	43.10%
	Above 46 years	238	38.40%
Level of education	Baccalaureate	125	20.20%
	Associate Degree	22	3.60%
	Bachelor's degree	388	62.70%
	Master	84	13.60%
Teaching experience	1-5 years	27	4.40%
	6-10 years	70	11.30%
	11-15 years	91	14.7%
	16-20 years	113	18.30%
	21- Over	318	51.40%

The study's participants are secondary resource school teachers who have access to computer laboratories, libraries, science laboratories, meeting rooms, and a teachers' lounge. By giving students the chance to participate in experiments and hands-on projects that connect classroom concepts to real-world applications, secondary resource schools have been especially significant in advancing STEM education. There are currently 50 secondary resource schools throughout Cambodia (Un et al., 2021).

According to RGC (2020), there are four regions: Central Plaina, Tonle Sap, Plateau and Mountain, and Coastal and Sea. Firstly, the researcher selected three regions using simple random selection. The researcher then chose two provinces at random from each region, followed by two resource schools from each province. Thus, the study selected twelve resource schools in six provinces. Of the 1465 teachers (563 females) from the target schools, 619 teachers—or 42.25% of the total population—participated in the current study. There are 180 teachers from four secondary resource schools combined in the Tonle Sap region, 253 from four schools in the Central Plain region, and 186 from four additional schools in the Coastal and Sea zone (see Table 4.1).

4.2 Results of the Extract Factors

To respond to the first purpose, EFA is conducted separately for each construct (IL, TCE, and TC) and then together to address the first research question. This approach allows the researcher to: (1) examine the factor structure of each individual construct (IL, TCE, and TC); (2) validate the overall factor structure by considering the refined and validated indicators of each construct together; and (3) assess whether the validated sub-constructs align with the main constructs and if they remain distinct or exhibit overlap. The newly validated and refined instruments are then used to analyze the remaining research questions.

4.2.1 Validate Tools of Teacher Collective Efficacy

A panel of three Ministry of Education Youth and Sport experts, all with doctoral degrees and research lecturing experience at universities, confirmed that the survey items chosen for this study accurately reflect the content of collective teacher efficacy, prompting changes based on their input. Following this, a field test was carried out using the instrument presented in Table 4.2. The researcher asked six teachers who participated in the research field test to provide feedback on the instrument's length, item appropriateness, clarity, and any other reactions they had to it. The researcher used these instructors' feedback to refine the survey instruments before conducting the pilot research. The teachers who took the test reported no issues or concerns with the instrument. They claimed that all the items are straight forward and easy to understand. Moreover, they shared similar demographic and professional characteristics, including educational levels, teaching experiences, social status and school setting with those who work at secondary resource schools.

Table 4.2: TCE Scales Developed through Feedback from a Panel of Expert

No	Items	GC	TA+	TA -
1.	We teachers in this school have abilities to get even the most difficult students engaged in their schoolwork.	X		
2.	Teachers in this school can prevent mobbing effectively.	X		
3.	We teachers in this school are confident that we are able to motivate students to learn.	X		
4.	Teachers in this school can address individual students' needs successfully.	X		
5.	We teachers in this school can create a safe and respectful atmosphere even in the most difficult classes.	X		
6.	We teachers in this school can succeed in teaching even to low-ability students.	X		
7.	The students come to school ready to learn		X	
8.	Home environment provides so many advantages that students here are likely to learn.		X	
9.	The communities provide opportunities that can help student to learn successfully.		X	
10.	Students in this school just are not motivated to learn			X
11.	Learning in this school is much difficult because students are worried about safety.			X
12.	Drug and alcohol abuse in the community make learning difficult for students here.			X

Following the field test, teachers from 12 secondary resource schools in 12 provinces of Cambodia, completed the updated collective teacher efficacy instrument shown in Table 4.2.

4.2.1.1 The Results of Exploratory Factor Analysis for TCE

Teachers score between 1 (strongly disagree) and 5 (strongly agree) on the 12 teacher collective efficacy questions. The researcher subjected teacher responses to principal component factor analysis using a varimax rotation to ascertain the relationships between the items. Two elements became apparent. Table 4.3 showed the rotational factor loading for each item in the collective teacher efficacy assessment.

Table 4.3: Rotated Component Matrixes for TCE

No.	Items	Factor 1	Factor 2
2.	Teachers in this school can prevent mobbing effectively (GC2).	.80	
6.	We teachers in this school can succeed in teaching even to low-ability students (GC6).	.79	-.104
7.	The students come to school ready to learn (TD1).	.79	
5.	We teachers in this school can create a safe and respectful atmosphere even in the most difficult classes (GC5).	.76	
8.	Home environment provides so many advantages that students here are likely to learn (TD2).	.74	
9.	The communities provide opportunities that can help student to learn successfully (TD3).	.74	
4.	Teachers in this school can address individual students' needs successfully (GC4).	.72	
1.	We teachers in this school have abilities to get even the most difficult students engaged in their schoolwork (GC1).	.72	
3.	We teachers in this school are confident that we are able to motivate students to learn (GC3).	.65	.26
12.	Drug and alcohol abuse in the community make learning difficult for students here (TD6).	.29	
10.	Students in this school just are not motivated to learn (TD4)		.86
11.	Learning in this school is much difficult because students are worried about safety (TD5).		.85

Preliminary factor analysis in Table 4.2 identified two variables from the collective efficacy items. These factors, with eigenvalues of 5.13 and 1.54, explained 55.58% of the variance in the total teacher collective efficacy items. The items that load on both factor one and factor two (item 3 and item 6) mostly reflect the group competency and task difficulties dimensions of collective efficacy, with one exception.

This can be seen by looking closely at the factor loading in Table 4.3. However, the two items (item 3 and item 6) loaded higher on the factor expected. They significantly score higher on the intended evaluation of the group competency component. The four items (items 7, 8, 9, and 12) created to gauge the teachers' opinions of the task analysis factor did not load on the intended factor, but they did load highly on the group competence factor, with the exception of item 12, which had minimal loading (0.29) on the group competence factor. Since they did not show a strong correlation with their respective components, items with loadings less than 0.40 were deemed to be deleted. The literature's recognized criteria (Hair et al., 2010; Field, 2013; Tabachnick & Fidell, 2013) suggest that items with low loadings may not significantly contribute to the tested construct. This criterion is in keeping with such guidelines.

4.2.1.2 Item Deletion for Negative Task Difficulties Factor of TCE

There are four main arguments in favor of the idea that collective teacher efficacy is a single component that combines task difficulty and group competence. Initially, the Oblique rotation shows that the task difficulties component accounts for only 12.81 percent of the variance, significantly less than the group competence factor, which contributes 42.77%. This significant disparity implies that the teacher collective efficacy construct does not meaningfully incorporate the task analysis component. Well-established research (Henson & Roberts, 2006) prioritizes the components that offer significant explanatory power to ensure the validity of our assessment scale.

Second, one component does not contain sufficient items. The results of the exploratory factor analysis showed that only two items (items 10 and 11) were included in the task difficulty component. This clearly showed that the task difficulty factor was underrepresented. Thompson's (2004) claim is consistent with the requirement that a factor must have sufficient items to support its existence. To ensure a consistent and reliable assessment, the researcher provided a justification for the exclusion of related items, as factor 2 did not meet this requirement.

Third, they reverse-coded three items related to the task analysis factor to capture the negative features of collective efficacy. These items may cause respondents to become confused and generate answer bias, which could compromise the measure's clarity, according to the first stage of the research results. Paulhus (1991) also mentions the possibility that reverse-coded items could skew response validity, which supports our decision to remove these items to emphasize the advantages of collective efficacy.

Fourthly, the Oblimin rotation indicates a 0.96 correlation between task

difficulty and group competence. This finding suggests that the two sub-components namely group competency and task difficulty are highly interrelated. Therefore, based on the three scientific evidences, TCE can definitely be conceptualized as a single dimensional factor in Cambodian context.

Table 4.4: Validated and Refined Tools for a Single TCE Factor

No.	Items	Factor 1
2.	Teachers in this school can prevent mobbing effectively (GC2).	.78
6.	We teachers in this school can succeed in teaching even to low-ability students (GC6).	.78
7.	The students come to school ready to learn (TD1) or GC7	.76
5.	We teachers in this school can create a safe and respectful atmosphere even in the most difficult classes (GC5).	.73
8.	Home environment provides so many advantages that students here are likely to learn (TD2) or GC 8.	.71
9.	The communities provide opportunities that can help student to learn successfully (TD3).	.70
4.	Teachers in this school can address individual students' needs successfully (GC4).	.68
1.	We teachers in this school have abilities to get even the most difficult students engaged in their schoolwork (GC1).	.67
3.	We teachers in this school are confident that we are able to motivate students to learn (GC3).	.60

This has an extremely high correlation. According to Brown (2015), the literature suggests that a one-factor solution would be more suitable, as highly linked components (often above 0.85) may not be sufficiently different to warrant their separation. All things considered, the findings offer scientific evidence that collective teacher efficacy is a single component in Cambodian context, which is in line with earlier studies' conclusions (Goddard, 1998; Tschannen-Moran, Hoy, 1998).

Finally, it was decided to not include negative task analysis (Factor 2) after a careful look at its low contribution, item loadings, insufficient representation, and the task difficulties that come with reverse-coded negative items. This methodology

guarantees the validity, reliability, and alignment of our teacher collective efficacy metric with our theoretical framework.

The current findings prove that teacher collective efficacy is a single dimensional construct within Cambodia educational environment. This is evidenced by the high inter-correlation among sub-component which is consistent with Brown's (2015) recommendation that highly correlated factors (typically above 0.85) may represent a single underlying construct. The exclusion of the negatively worded factor (Task difficulty) further enhanced the clarity and reliability of the measurement, reinforcing alignment with the theoretical framework. These findings are consistent with previous studies (Goddard, 1998; Tschannen-Moran & Hoy, 1998), strengthening the case for a single-factor model of TCE in the Cambodia context.

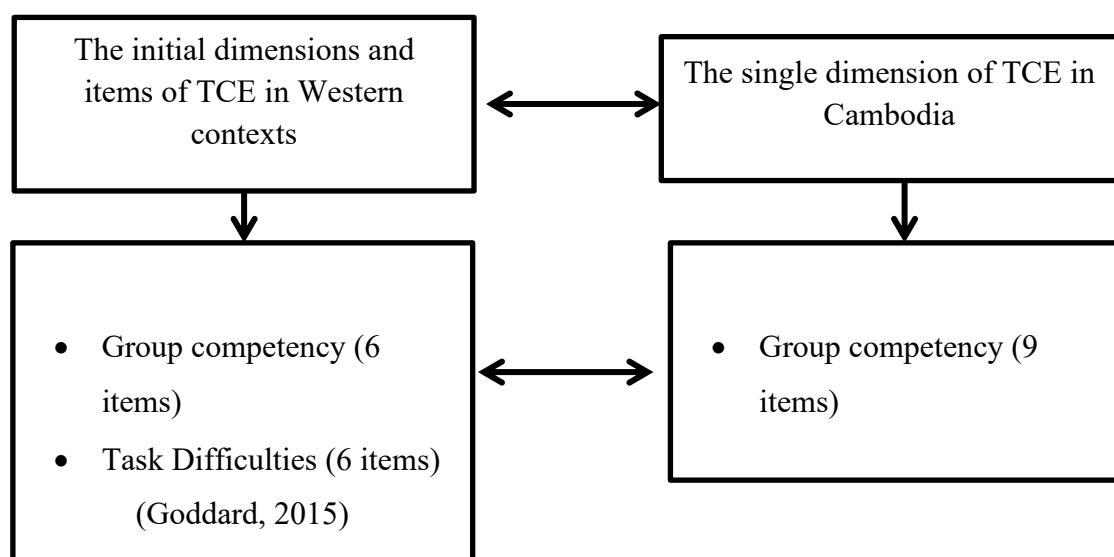


Figure 4.1: Outlining the Results of TCE Variables from EFA Analysis

4.2.2 Validating Tools of Instructional Leadership

After ensuring that the items selected for the present survey study sufficiently represented the content of instructional leadership, a panel of three experts from the Ministry of Education Youth and Sports, all holding doctoral degrees and having lectured in research at universities, made revisions based on their feedback. The IOC values were provided by the three experts who evaluated the degree of congruence for each item based on a scoring system: + 1 for congruence, 0 for unclear items and -1 for incongruence items. Then the instrument displayed in Table 4.5 was subjected to a field test. Six teachers participated in the research field test and provided feedback on the instrument's clarity, length, appropriateness of items, and any other responses they had

to it. The researcher intended to use these teachers' feedback to revise the survey instrument before conducting the pilot study. The teachers who participated in the test noted no difficulties or concerns with the instrument.

Table 4.5: IL Instrument Developed with Feedback from Experts

No	Items	PLC	MIP	MS
1.	My school principal develops a focused annual school goals.			X
2.	My school principal uses data on student performance when developing the school's academic goals.			X
3.	My school principal discusses the school's academic goals with teachers at technical meetings.			X
4.	My school principal ensures that the school's academic goals are reflect in highly visible display in the school.			X
5.	When making curricular decisions with teachers, my school principals refers to the school's academic goals			X
6.	My school principal clearly appoints a teacher who is responsible coordinating the curriculum across grade levels.		X	
7.	My school principal participates actively in reviewing the needs of curriculum materials.		X	
8.	My school principal individually meets with teachers to discuss student progress.		X	
9.	My school principal discusses student learning achievement with teachers to identify curriculum strengths and weakness.		X	
10.	My school principal use tests and students' scores to assess progress toward school goals.		X	
11.	My school principal visits classrooms to discuss school issues with teachers and students.		X	
12.	My school principle requires teachers to reinforce superior performance in staff meetings, newsletters or			

memos.	X
13. My school principal praise teachers privately for their efforts or performance.	X
14. My school principal actively supports teachers who employ new skills that they acquired from in-services training in their classroom.	X
15. My school principal ensures that every staff member is invited to important in-service activities	X
16. My school principal attends or leads teachers in In-service activities concerned with instruction in school.	X
17. In every meeting, my school principal gives time at monthly meetings for teachers to share ideas or knowledge from in-service activities.	X
18. My school principal uses assemblies to honor students for academic accomplishment or for behavior.	X
19. My school principal recognizes superior student learning achievement or improved behaviors by being shown students' photos or name with their work in the office.	X
20. My school principle contacts parents to communicate improve or exemplary student performance.	X

After the field test, the revised instructional leadership instrument displayed in Table 4.5 was administered to teachers from 12 secondary resource schools in 12 provinces of Cambodia, completed the updated IL instrument shown in Table 4.5.

4.2.2.1 The Result of Exploratory Factor Analysis for IL

Using a Likert scale ranging from 1 (almost never) to 5 (almost always), teachers responded to the 20 related to instructional leadership. The researcher subjected teacher responses to principal component factor analysis using a varimax rotation to ascertain the relationship between the items. This statistical method was used to determine the extent to which individual items clustered together, revealing distinct dimensions of instructional leadership. It was found that there were three factors emerged Table 4.6 showed the rotating factor loading for each component in the instructional leadership tool. These findings provided statistical support for the

construct validity of instructional leadership. The factor loadings of each item below 0.5 are not showed.

Table 4.6: Rotated Component Matrix for IL Instruments

No.	Items	Factor 1	Factor 2	Factor 3
2.	My school principal uses data on student performance when developing the school's academic goals (SM2).	.77	.22	.15
1.	My school principal develops a focused annual school goals (SM1).	.75	.20	
3.	My school principal discusses the school's academic goals with teachers at technical meetings (SM3).	.70	.42	.22
4.	My school principal ensures that the school's academic goals are reflect in highly visible display in the school (SM4).	.68	.294	.34
6.	My school principal clearly appoints a teacher who is responsible coordinating the curriculum across grade levels (MIP1).	.63		.48
7.	My school principal participates actively in reviewing the needs of curriculum materials (MIP2).	.616	.40	.39
5.	When making curricular decisions with teachers, my school principals refers to the school's academic goals (SM5)	.607	.19	.41
8.	My school principal individually meets with teachers to discuss student progress (MIP3).	.460	.33	.46
13.	My school principal praise teachers privately for their efforts or performance (PLC1).	.209	.74	.34
12.	My school principle requires teachers to reinforce superior performance in staff			

	meetings, newsletters or memos (PLC1).	.405	.71	
10.	My school principal use tests and students' scores to assess progress toward school goals (MIP5).	.61	.61	
20.	My school principle contacts parents to communicate improve or exemplary student performance (PLC9).	.18	.61	.34
11.	My school principal visits classrooms to discuss school issues with teachers and students (MIP6).	.20	.60	.22
14.	My school principal actively supports teachers who employ new skills that they acquired from in-services training in their classroom (PLC3).	.13	.60	.52
9.	My school principal discusses student learning achievement with teachers to identify curriculum strengths and weakness (MIP4).	.37	.55	.37
15.	My school principal ensures that every staff member is invited to important in-service activities (PLC4)	.15		.75
19.	PLC8 My school principal recognizes superior student learning achievement or improved behaviors by being shown students' photos or name with their work in the office (PLC8).	.20	.24	.68
18.	My school principal uses assemblies to honor students for academic accomplishment or for behavior (PLC7).	.38	.31	.68
17.	In every meeting, my school principal gives time at monthly meetings for teachers to share ideas or knowledge from in-service activities (PLC6).	.19	.41	.67

16.	My school principal attends or leads teachers in In-service activities concerned with instruction in school (PLC5).	.25	.49	.59
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The instructional leadership items yielded three components, according to the preliminary factor analysis in Table 4.6. They are school mission (factor 1), managing instructional program (factor 2), and developing positive school learning climate (factor 3). These factors, with respective eigenvalues of 9.94, 1.47, and 1.12, explained a total of 62.67% of the variation in the instructional leadership items. A close inspection of Table 4.6's factor loadings shows that, with two exceptions, items 12, 13, and 20 all have significant loadings (less than 0.40) on expected Factor 3 (positive school learning climate) but high loadings (0.712, 0.737, and 0.612) on Factor 2 (MIP). Keeping these items could jeopardize Factor 3's construct validity (DeVellis, 2016).

4.2.2.2 Removing Manage Instructional Program of IL

The deletion of the managing instructional program construct (MIP) is primarily due to the theoretical justification of MIP items, conceptual clarity, factor loadings, and duplication (See Table 4.6). First, MIP items may not be adequately measuring the intended construct if they are designed to measure different facets of managing an instructional program but instead more closely align with the School Mission and Positive Learning Climate constructs (Fabrigar & Wegener, 2012). Second, it is important to analyze the MIP items' loadings because they appear to be redundant and they load heavily on SM and PLC but not strongly on their intended factor (managing instructional program) (Costello & Osborne, 2005). If keeping MIP adds duplication to this model without making any significant contributions, it might be wiser to remove it. This can improve interpretability and simplify the factor structure (Kline, 2011).

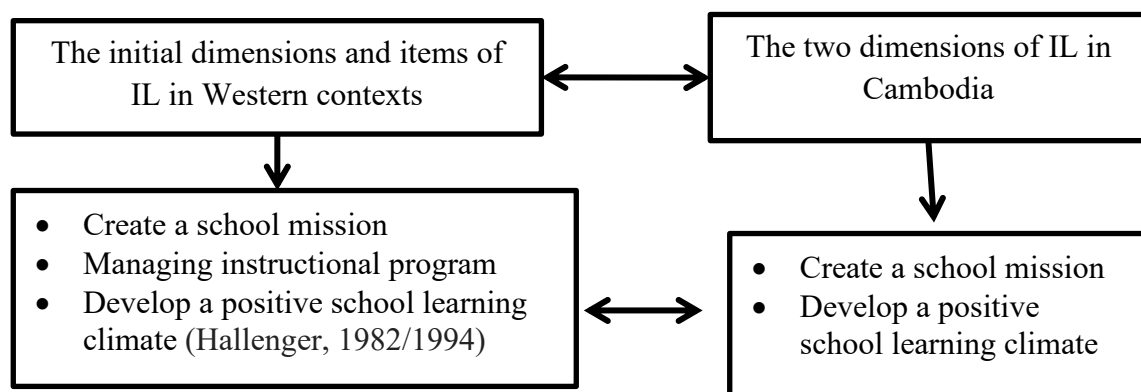


Figure 4.2: Outlining the Results of IL from EFA Analysis in Cambodia

The decision to delete the Managing the Instructional Program (MIP) construct from the instructional leadership framework in this study is supported by both theoretical and empirical considerations. Brown (2015) maintains that when the school mission and developing a positive learning climate encompass core aspects of instructional leadership, keeping MIP as a distinct component may be unnecessary. This aligns with the results of the current Exploratory Factor Analysis (EFA), which indicated weak or inconsistent factor loadings for MIP items. Moreover, in centralized education systems such as those in Cambodia, China, Thailand, and Vietnam, school principals have limited autonomy over curriculum and instructional coordination, which potentially diminishes their engagement with or understanding of MIP-related tasks (Antoniou & Lu, 2018). Consequently, principals may not identify strongly with this leadership dimension, leading to unreliable responses and a lack of conceptual clarity. Therefore, removing MIP allows for a more contextually relevant and theoretically sound model of instructional leadership.

In addition to the previously provided information, Table 4.7's results demonstrate the appropriate removal of the construct of managing instructional programs, which is composed of 6 items. Therefore, there are only two components of instructional leadership found in Cambodian context, namely creating school mission and developing positive school learning climate. Chapter 5 provides the extensive discussion, explaining why managing instructional program is appropriately removed.

Initially, the researcher should eliminate two items (7 and 8), as they contain loadings of 0.39 and 0.33 on managing instructional program constructs, respectively, below 0.50. According to Hair et al. (2014), the standardized factor loading cutoff value is 0.5 and above, while Cronbach's alpha is 0.7 and higher (Nunnally, 1978). Item 6's failure to load on its managing instructional program (factor 2) suggests that it may not accurately measure the intended construct (Field, 2018). Furthermore, it may be more difficult to interpret Factor 2 because items 6, 7, and 8 have lower loadings on intended Factor 2 (managing instructional programs) than their loadings on Factor 1 (school missions). This could be because they are better suited to a different construct (Brown, 2015).

Second, cross-loadings are present in item 10. There is uncertainty regarding which of the two components in item 10 is actually represented because of the similar loadings on the school mission and managing instructional program constructs. This cross-loading item may make the factors less clear (Thompson, 2004).

Third, the deletion of four items from the construct of the managing instructional programs leaves only two items (9 and 11) loaded. This suggests that the factor does not have adequate representation. A stable factor is often defined by at least three strong loadings (Costello & Osborne, 2005).

Fourth, the results of the study suggest the absence of managing instructional program component, implying that the concept may not be applicable or significant in the context of Cambodia (DeVellis, 2017). This supports the choice to eliminate it in order to avoid adding complexity to the present study. Additionally, sticking with a poorly defined construct such as managing instructional program might complicate structural equation modeling (SEM) and confirmatory factor analysis (CFA) in the sequent analysis, leading to problems with model fit and erroneous results. Eliminating Factor 2 can enhance the robustness and streamline the model (Kline, 2016).

Table4.7: Validated and Refined Tools after EFA for IL

No.	Items	Factor 1	Factor 3
2.	My school principal uses data on student performance when developing the school's academic goals. (SM2)	0.77	
1.	My school principal develops focused annual school goals. (SM1)	0.75	
3.	My school principal discusses the school's academic goals with teachers at technical meetings. (SM3)	0.70	
4.	My school principal ensures that the school's academic goals are reflected in highly visible displays in the school. (SM4)	0.68	
5.	When making curricular decisions with teachers, my school principal refers to the school's academic goals. (SM5)	0.61	
14.	My school principal actively supports teachers who employ new skills that they acquired from in-service training in their classroom. (PLC3)		0.52
15.	My school principal ensures that every staff member is invited to important in-service activities. (PLC4)		0.75

19.	My school principal recognizes superior student learning achievement or improved behaviors by being shown students' photos or names with their work in the office. (PLC8)	0.68
18.	My school principal uses assemblies to honor students for academic accomplishments or behaviors. (PLC7)	0.67
17.	In every meeting, my school principal gives time at monthly meetings for teachers to share ideas or knowledge from in-service activities. (PLC6)	0.70
16.	My school principal attends or leads teachers in in-service activities concerned with instruction in school. (PLC5)	0.59

4.2.3 Validating the Tool of Teacher Commitment

After a panel of three experts from Ministry of Education Youth and Sports (all holding Doctoral degree with lecturing experience in research at universities) had insured that the items selected for the present survey study sufficiently represent the content of teacher commitment, the revisions was made based on feedback from the panel of experts.

Table 4.8: TC Developed through Feedback from a Panel of Experts

No	Items	TCO	TCS	TCT
1.	I really care about the fate of this school	X		
2.	I speak to my friends proudly that my school is a great workplace.	X		
3.	I find that my values and the value of the school are very similar.	X		
4.	I am proud to tell others that I work in this school.	X		
5.	I believe that this school is the best one to work for	X		
6.	I enjoy discussing my school with people outside it.	X		
7.	I am extremely glad to work in this school	X		
8.	It is my mission to ensure that all my students can succeed.		X	

9.	It is my responsibility to ensure good social relationships among my students	X
10.	I feel obliged to mediate among rival groups of students.	X
11.	I feel too ashamed if I do not make all my efforts to improve my students' knowledge or skill.	X
12.	I try to do my best to help unsuccessful students.	X
13.	It is my responsibility to help my students to obtain higher academic achievement.	X
14.	I now want my teaching to be more success than in the past	X
15.	I sometimes lie awake at night thinking about the next morning' lesson.	X
16.	I enjoy teaching,	X
17.	Choosing to become a teacher is one of best choices for me.	X
18.	I put a lot of personal effort into my teaching	X
19.	The most important thing in my life is teaching.	X

Then the instrument displayed in Table 4.8 was subjected to a field test. In the research field test, six teachers were asked to give feedback regarding the clarity of instruments, length of the instrument, appropriateness of the items and any other responses they had to the instrument. The feedback of these teachers was intended to provide another opportunity to revise the survey instrument before conducting the study. The teachers who participated in the test noted no difficulties or concerns with the instrument. After the field test, the revised teacher commitment instrument displayed in (Table 4.8) was administered to teachers from 12 secondary resource schools in 6 provinces of Cambodia, completed the updated tool of teacher commitment.

4.2.3.1 Results of Exploratory Factor Analysis for Teacher Commitment

Teacher responses to the 19 teacher commitment items range from 1 (strongly disagree) to 5 (strongly agree). The responses were submitted to principal component

factor analysis with a varimax rotation to determine how the items would relate. Three factors emerged. The rotated factor loadings for each item in the teacher commitment instrument are displayed in Table 4.9.

The preliminary factor analysis in Table 4.8 identified three variables from the teacher commitment items. There are three types of teacher commitment: teacher commitment organization (TCO), teacher commitment to teaching (TCT), and teacher commitment to student (TCS).

These factors have eigenvalues of 10.28, 1.45, and 1.09, respectively, and explain a total of 67.25% of the variance in the teacher commitment items. If you look closely at Table 4.9, it will be seen that, with two exceptions, Item 8 (TCS1) has cross-loadings, but it loads less on expected factor 3 (teacher commitment to students) with a loading of 0.39 than on factor 1 (teacher commitment to organization) with a loading of 0.62.

On the other hand, Items 12 and 13 have high loadings of 0.57 and 0.66 on Factor 2 (teacher commitment to teaching), but much lower loadings (less than 0.40) on expected factor 3, which means it doesn't really measure factor 3 or teacher commitment to students (Field, 2018), but these items may be more relevant to teacher commitment to teaching (Factor 2) (Brown, 2015).

Keeping this item could jeopardize the construct validity of Factor 3 (DeVellis, 2017). It is advised eliminating the three items to improve the emphasis and clarity of the remaining Factor 3-related items. Item 9's identical loadings across Factors 1, 2, and 3 create uncertainty about which construct it actually reflects. This cross-loading complicates the interpretation of the factors (Thompson, 2004).

Only items 10 and 11 display the loading on Factor 3 (teacher commitment to students), suggesting a weak representation of the factor. Typically, three significant loadings are required for a factor to be considered stable and interpretable (Costello & Osborne, 2005).

The poor representation can show that the factor overlaps with other constructs or insufficient differentiation in constructing their own factor. Future validity of this tool should consider redoing or add items that more comprehensively reflect teacher commitment to students. Strengthening teacher commitment to students could make the entire scale be more reliable, well-structured and easy to understand.

Table 4.9: Rotated Component Matrix for TC Instruments

No	Items	Factor 1	Factor 2	Factor 3
4.	I am proud to tell others that I work in this school (TCO4).	.80	.37	
5.	I believe that this school is the best one to work for (TCO5).	.79	.32	
2.	I speak to my friends proudly that my school is a great workplace (TCO2).	.78		
3.	I find that my values and the value of the school are very similar (TCO3).	.77		
7.	I am extremely glad to work in this school (TCO7).	.74	.30	
1.	I really care about the fate of this school (TCO1).	.70		
8.	It is my mission to ensure that all my students can succeed (TCS1).	.62		.39
6.	I enjoy discussing my school with people outside it (TCO6).	.55	.34	.41
19.	The most important thing in my life is teaching (TCT6).		.77	
18.	I put a lot of personal effort into my teaching (TCT5).		.76	.39
17.	Choosing to become a teacher is one of best choices for me (TCT4).	.316	.73	
16.	I enjoy teaching TCT3),	.44	.67	
13.	It is my responsibility to help my students to obtain higher academic achievement (TCS 2).	.37	.66	.39
14.	I now want my teaching to be more success than in the past (TCT1).	.33	.64	.435
12.	I try to do my best to help unsuccessful students (TCS5).	.33	.57	.49
10.	I feel obliged to mediate among rival groups			

of students (TCS3).				.78
11. I feel too ashamed if I do not make all my efforts to improve my students' knowledge or skill (TCS4).				.75
9. It is my responsibility to ensure good social relationships among my students (TCS6).	.371	.317		.67
15. I sometimes lie awake at night thinking about the next morning' lesson (TCT2)		.55		.37

4.2.3.2 Removing Teacher Commitment to Student Construct of TC

The preliminary factor analysis in Table 4.9 identified three variables from the teacher commitment components. There are three types of teacher commitment: teacher commitment organization (TCO), teacher commitment to teaching (TCT), and teacher commitment to student (TCS). These factors have eigenvalues of 10.28, 1.45, and 1.09, respectively, and explain a total of 67.25% of the variance in the teacher commitment items.

The findings placed in Table 4.9 showed that there are two exceptions, Item 7 has cross-loadings, but it loads less on expected factor 3 (with a loading of 0.39) than on factor 1 or teacher commitment to organization (with a loading of 0.62). On the other hand, Items 12 and 13 have high loadings of 0.57 and 0.66 on Factor 2 (teacher commitment to teaching), but much lower loadings (less than 0.40) on expected factor 3, which means it doesn't really measure factor 3 or teacher commitment to students (Field, 2018), but these items may be more relevant to teacher commitment to teaching (Brown, 2015). Keeping this item could jeopardize the construct validity of Factor 3 (DeVellis, 2017). It is advised eliminating the three items to improve the emphasis and clarity of the remaining Factor 3-related items. Item 9's identical loadings across Factors 1, 2, and 3 create uncertainty about which construct it actually reflects. This cross-loading complicates the interpretation of the factors (Thompson, 2004). Only items 10 and 11 display the loading on Factor 3 (managing instructional program), suggesting a poor representation of the factor. Typically, three significant loadings are required for a factor to be considered stable and interpretable (Costello & Osborne, 2005).

Table 4.10: Validated and Refined Tools after EFA for TC

No.	Items	Factor 1	Factor 2
4.	I am proud to tell others that I work in this school (TCO4).	.80	
5.	I believe that this school is the best one to work for (TCO5).	.79	
2.	I speak to my friends proudly that my school is a great workplace (TCO2)	.78	
3.	I find that my values and the values of the school are very similar (TCO3)	.77	
7.	I am extremely glad to work in this school (TCO7).	.74	
1.	I really care about the fate of this school (TCO1).	.70	
6.	I enjoy discussing my school with people outside it (TCO6)	.55	
19.	The most important thing in my life is teaching (TCT6)		.77
18.	I put a lot of personal effort into my teaching (TCT5)		.76
17.	Choosing to become a teacher is one of best choices for me (TCT4).		.73
16.	I enjoy teaching (TCT3)		.67
14.	I now want my teaching to be more success than in the past (TCT1).		.64
15.	I sometimes lie awake at night thinking about the next morning's lesson (TCT2).		.55

The findings from EFA analysis was similar to Meyer et al. (1993), which will be extensively described in the next chapter 5. Based on the EFA analysis, the original dimensions of teacher commitment with 3 sub-components, from the Western context are reduced to only two components in Cambodian context. Teacher commitment to students is removed as most items are overlapped with teacher commitment to teaching and some of them have low loadings on this sub-component.

In conclusion, the exploratory factor analysis (EFA) findings show that the original three-dimensional model of teacher commitment, developed in a Western

context, does not fully match in the Cambodian context of secondary resource schools. The sub-component representing teacher commitment to students (TCS) revealed poor reliability and construct validity due to significant cross-loadings and low factor loadings, leading to its exclusion.

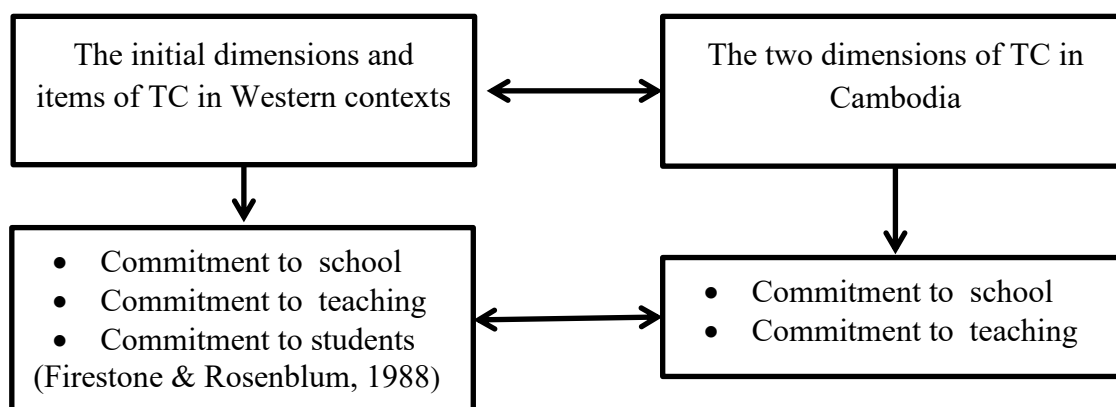


Figure 4.3: Outlining the Results of TC from EFA analysis in Cambodia

4.3 Results of the Perceived Levels of IL, TCE and TC

To respond to the second purpose, this section presents the descriptive statistics for the key dimensions of leadership and teacher commitment as assessed among the 619 participants in the study. The results are based on a Likert scale ranging from 1 to 5, where higher scores indicate more positive perceptions or behaviors. Each dimension was rated for its mean (M), which represents the average response, and its standard deviation (SD), which reflects the variability or consistency of responses. The rankings are based on the average score for each dimension, with the highest-ranking dimensions reflecting the most positively perceived aspects of leadership, teacher collective efficacy and teacher commitment.

Table 4.11: Teacher Perceptions of IL, TCE and TC

Dimensions	N	Total M	Meaning	SD	Rank
Instructional Leadership	619	4.13	High	.58	5
School Mission	619	4.25	High	.56	4
Positive learning climate	619	4.00	High	.71	6
Teacher collective efficacy	619	3.84	High	.49	7

Teacher commitment	619	4.40	High	.44	2
Commitment to school	619	4.38	High	.49	3
Commitment to teaching	619	4.42	High	.45	1

The means and standard deviation along with reliability statistics for research variables are displayed in Table 4.11. Teachers reported relatively high perceptions of instructional leadership ($M = 4.13$, $SD = 0.58$) with a Cronbach's alpha of 0.91 and for each sub-construct of instructional leadership, teachers also reported relatively high perceptions. In particular, teachers' perceptions of the school mission ($M = 4.25$, $SD = 0.56$), with a Cronbach's alpha of 0.87, while teachers' perceptions of the school learning climate were also high ($M = 4.00$, $SD = 0.71$) with a Cronbach's alpha of 0.88. In addition, the teacher report to the high grand mean of teacher commitment ($M = 4.40$, $SD = 0.44$) with a Cronbach's alpha of 0.94 and for the sub-construct of teacher commitment, their commitment to school ($M = 4.38$, $SD = 0.49$) with a Cronbach's alpha of 0.92 and their commitment to teaching ($M = 4.42$, $SD = 0.45$) with a Cronbach's alpha of 0.89. Finally teachers' perception of collective efficacy is not high ($M = 3.84$; $SD = 0.49$) with Cronbach's alpha of 0.85.

4.4 Multiple Comparisons of IL and TC in Three Regions

Table 4.12 reveals how teachers' perceptions of instructional leadership (IL) and teacher commitment are compared across three regions in Cambodia: the Tole Sap region, Central Plain, and Coastal and Sea regions. The table provides mean scores and standard deviations for key perceived variables, including school mission, positive school learning climate, teacher commitment to school, and commitment to teaching. Statistical tests (F-values and p-values) indicate significant regional differences in some areas, with post-hoc results identifying which regions show higher perceptions for specific variables.

These disparities indicated that regional context plays a role in determining how teachers perceive school principals and their own teaching commitment. For example, high score in certain regions may reflect best practices of instructional leadership by school directors. Regional differences may be also caused by resource accessibilities, administrative support, and opportunities capacity building. Understanding these differences is crucial for developing equitable access to policies.

Table 4.12: Mean and SD Various Tests

Perceived variables	Schools in the Tole Sap region (a)		Schools in Central Plain (b)		Schools in Coastal and Sea (c)		<i>F</i>	Post Hoc Results
	M	SD	M	SD	M	SD		
School Mission	4.27	.56	4.15	.58	4.37	.49	***8.374	c > b
Positive learning climate	4.00	.76	3.94	.71	4.10	.66	2.402	ns
Commitment to school	4.38	.52	4.28	.46	4.51	.47	***11.678	c > a
Commitment to teaching	4.44	.47	4.35	.45	4.50	.42	*5.859	c > b
Collective efficacy	3.89	.49	3.83	.55	3.80	.43	1.403	ns

Notes: Perceptions of instructional leadership (school mission, and positive school learning climate) and teacher commitment to school in the three types of regions. * $p < 0.05$; ** $p < 0.001$; *** $p < 0.0001$; ns = non-significance

The third purpose of this study is to investigate regional differences in teachers' perceptions of their school directors' instructional leadership including their perceptions of the school mission, school learning climate, and self-reported commitment to school, their commitment to teaching and collective efficacy in three types of regions: Tonle Sap, Central Plain, and Coastal and Sea. One-way ANOVA was employed to test these differences, with the findings shown in Table 4.12.

The results in Table 4.12 displayed that there are significant differences in the teachers' perceptions of creating school missions between different regions in which schools are located ($F(2, 616) = 8.374, p < 0.0001$). A post hoc Bonferroni test revealed that teachers in the Coastal and Sea regions rated their principals' ability to create a school mission higher than those in the Central Plain region. However, Teachers' perceptions of the school mission in Tonle Sap were not different from those in both the Central Plain and Coastal and Sea regions.

Table 4.12 displayed no significant differences in teachers' perceptions of the school learning climate across the Central Plain, Coastal and Sea, and Tonle Sap regions $F(2,616) = 2.402, p > .05$. In this sense, teachers in the three regions provided the similar levels of school learning climate implemented by principals.

The findings in Table 4.12 displayed that Levene's Test for homogeneity of variances yielded $F(2, 616) = 11.678, p = 0.40$. This indicated a violation of the assumption of equal variances in the regions for teacher commitment to the school. Therefore, the Games-Howell post hoc test was appropriately used to compare the differences between regions when variances and sample size were unequal (Field, 2013; Games & Howell, 1976). The Game-Howell post hoc test in Table 3 displayed significant differences in the perceptions of commitment to schools across different regions. The finding showed that teachers in the Coastal and Sea regions had the highest commitment to school, which was significantly higher than those in both Tonle Sap and Central Plain regions. However, there were no significant differences were found in teacher commitment to school between the Tonle Sap and Central regions.

The results in Table 4.12 displayed that there are significant differences in the teachers' commitment to teaching between different regions in which schools are located ($F(2, 616) = 5.859, p < 0.05$). A post hoc Bonferroni test in Table 4.12 revealed that teachers in the Coastal and Sea regions rated higher teacher commitment to teaching than those in the Central Plain region. However, Teachers' perceptions of commitment to teaching in Tonle Sap were not different from those in both the Central Plain and Coastal and Sea regions.

The results in Table 4.12 displayed that there are no significant differences in the teachers' collective efficacy between different regions in which schools are located ($F(2, 616) = 1.40, p > 0.05$). In this sense, teachers in the three regions provided the similar levels of collective efficacy.

4.5 Correlational Results

There are two types of correlational analysis in the current study. One aims to examine the relationship between sub-constructs of independent, dependent variables and a mediating variable. The second investigates the relationship between demographic variables, instructional leadership and teacher commitment.

4.5.1 The Relationships among the All Study Variables

One of fourth purpose in this study is to investigate relationships between refined sub-components of independent and dependent variables. The correlation between instructional leadership (school mission and positive school learning climate), teacher commitment (commitment to school and commitment to teaching), and teacher collective efficacy in perceptions of teachers from secondary resource schools in 3 different regions are reported in Table 4.13.

Table 4.13: Correlation between Sub-Construct and Sub-Construct

Variables	1	2	3	4	5
1. School Mission	-				
2. Positive Learning Climate	.66**	-			
3. Commitment to school	.49**	.47**	-		
4. Commitment to teaching	.42**	.40**	.73**	-	
5. Collective efficacy	.41**	.44**	.40**	.37**	-
** Correlation is significant at the 0.01 level (2-tailed).					

The analysis, conducted using Pearson correlation, revealed sub-construct of instructional leadership- creating school mission, and school learning climate were found significantly and positively correlated with teacher commitment to school as shown in Table 4.13. Teachers' perceptions of principal's creating a school mission were significantly correlated with teacher commitment to school ($r = 0.49, p < 0.001$), and teacher commitment to teaching ($r = 0.42, p < 0.001$). Similarly, teachers' perceptions of principals' role in developing school learning climate were also found positively and significantly correlated with teacher commitment to school ($r = 0.47, p < 0.001$) and teacher commitment to teaching ($r = 0.40, p < 0.001$). Moreover, teacher collective efficacy was significantly correlated with teachers' perceptions of creating a school mission ($r = 0.41, p < 0.001$) and of developing school learning climate ($r = 0.44, p < 0.001$) as implemented by school principals. Finally, teacher collective efficacy was significantly correlated with teachers' perceptions of commitment to school ($r = 0.40, p < 0.001$) and of commitment to teaching ($r = 0.37, p < 0.001$), perceived by teachers. All correlations fall within the medium (Cohen et al., 2018).

4.5.2. Relationships between Teachers' Demographic and Study Variables

The fourth purpose of this study is also to investigate correlations between refined sub-components of independent, dependent variables and demographic variables. The correlations between instructional leadership (school mission and positive school learning climate), teacher commitment (commitment to school and commitment to teaching), and teachers' demographics in perceptions of teachers from secondary resource schools in 3 different regions are reported in Table 4.14.

Table 4.14: Descriptive Data and Correlation: Demographics and Variables

Variables	M	SD	1	2	3	4	5	6
1. Age	3.19	0.77	-					
2. Education	2.70	0.94	-.102*	-				
3. Experience	4.01	1.23	.795**	-.105**	-			
4. SM	4.42	0.45	.050	-.050	.055	-		
5. PLC	4.00	0.71	.106	-.121**	.067	.67**	-	
6. TCT	4.42	0.45	.140**	-.019	.124**	.42**	.401**	-

* Correlation is significant at the 0.05 level (2-tailed).

Table 4.14 showed that commitment to teaching is significantly and positively correlated with teacher with age ($r = 0.140$, $p < .01$), and teaching experience ($r = 0.124$, $p < .01$) but according Cohen (2008), this correlation is very low. The findings also displayed that teacher commitment to teaching was significantly correlated with school mission ($r = .422^{**}$, $p < .001$) and school learning climate ($r = .401^{**}$, $p < .001$).

4.6. Multiple Regression Results

The important part of fifth purpose of this study is also to investigate the direct effects of refined sub-components of instructional leadership on teacher collective efficacy and validated sub-component of teacher commitment in perceptions of teachers from secondary resource schools in 3 different regions and the impacts of collective efficacy on teacher commitment.

This study employed both multiple regression analysis and structural equation modeling (SEM) within a correlational research design. Multiple regression was first used to examine the direct effects of instructional leadership on two dimensions of teacher commitment: commitment to the organization (TCO) and commitment to

teaching (TCT). Subsequently, SEM was conducted to test a mediation model in which collective teacher efficacy (TCE) functioned as a mediating variable in the relationship between instructional leadership and two sub-components of commitment. The integration of both analytical techniques allowed for a more comprehensive exploration of the direct and indirect pathways among the study variables.

4.6.1 The Predictors of TCT

Multiple regression is employed for data analysis using SPSS software program version 23. This method allows the researcher to test specific, direct correlation between sub-dimensions of instructional leadership and teacher commitment to teaching. It is a straightforward method to examine the direct effects of individual dimension. To examine the effects of demographic variables and IL variables on teacher commitment to teaching, multiple regression is used and the results are showed in Table 4.15.

Table 4.15: the Predictors of Teacher Commitment to Teaching

Commitment to teaching									
Models	<i>B</i>	<i>SE</i>	β	ΔR^2	R^2	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Semi-Partial</i>
Model 1	4.20	.099		.018	.013	.000	3	3.797	
Age	.063	.039	.107			.110			
Education	-.007	.019	-.014			.729			
Experience	.011	.025	.031			.645			
Model 2	2.72	.151		.212	.206	.000	5	33.026	
Age	.060	.035	.102			.088			
Education	.007	.018	.014			.704			
Experience	.001	.022	.002			.976			
School									
Mission	.226	.039	.277			.000			.227
Positive									
Learning									
climate	.133	.031	.207			.000			.171

Note: ΔR^2 = delta R-squared. R^2 = Adjusted R^2

Hierarchical multiple regression was employed to investigate the predictors of teacher commitment to teaching. In the first model, controlled variables (age, education level, and teaching experience) were entered in the first block. Table 4.15 displayed that controlled variables have significant effects on teacher commitment to teaching, Adjusted $R^2 = .013$, $F(3, 615) = 3.797$, $p < .0001$, explaining 1.3% of the variance in commitment to teaching. In the second model, the sub-constructs of IL (school mission and school learning climate) were entered, explaining an additional 19.3% of the variance in the dependent variable. This indicated that IL significantly predicted teacher commitment to teaching, Adjusted $R^2 = .206$, $F(5, 613) = 33.026$, $p < .001$. The final model, which entered all predictors, show that school mission ($\beta = .277$, $p < .001$) and school learning climate ($\beta = .207$, $p < .001$) were significant predictors of teacher commitment to teaching. Together, the final model explained 20.6% of the variance in teacher commitment to teaching.

4.6.2 The Effects of Instructional Leadership on TCO

Multiple regression is still employed for data analysis using SPSS software program version 23. This method allows the researcher to test specific, direct correlation between sub-dimensions of IL and sub-dimensions of teacher commitment to school/organization. It is a straightforward method to examine the direct effects of individual dimension. To examine the effects of demographic variables and IL variables on teacher commitment to school, multiple regression is used and the results are showed in Table 4.16.

Table 4.16: Predictors of Teacher Commitment to School

Commitment to School									
Models	<i>B</i>	<i>SE</i>	β	ΔR^2	R^2	<i>Sig.</i>	<i>df</i>	<i>F</i>	<i>Semi-Partial</i>
Model 1	4.12	.106		.021	.016	.000	3	4.38	
Age	.042	.042	.066			.324			.040
Education	-.004	.021	-.008			.845			-.008
Experience	.034	.027	.085			.201			.052
Model 2	2.26	.155		.268	.283	.000	5	49.68	
Age	.038	.036	.060			.290			.043

Education	.014	.018	.027	.437	.031
Experience	.021	.023	.052	.359	.037
School					
Mission	.267	.040	.304	.000	.260
School					
Learning					
climate	.184	.032	.267	.000	.229

Note: $\Delta R^2 = \text{delta } R\text{-squared}$. $R^2 = \text{Adjusted } R^2$

Hierarchical multiple regression was employed to investigate the predictors of teacher commitment to school. In the first model, controlled variables (age, education level, and teaching experience) were entered in the first block. Table 4.16 displayed that controlled variables have significant effects on teacher commitment to school, Adjusted $R^2 = .016$, $F(3, 615) = 4.376$, $p < .0001$, explaining 1.6% of the variance in commitment to school. In the second model, the sub-constructs of IL (school mission and school learning climate) were entered, explaining an additional 26.8% of the variance in the dependent variable. This indicated that IL significantly predicted teacher commitment to school, Adjusted $R^2 = .283$, $F(5, 613) = 49.683$, $p < .001$. The final model, which entered all predictors, show that school mission ($\beta = .304$, $p < .001$) and school learning climate ($\beta = .267$, $p < .001$) were significant predictors of teacher commitment to school. Together, the final model explained 28.3% of the variance in teacher commitment to school.

4.6.3 The Effects of Instructional Leadership and TCE

The last part of fourth purpose of this study is also to investigate the effects of refined sub-components of instructional leadership on teacher collective efficacy in perceptions of teachers from secondary resource schools in 3 different regions.

Table 4.17: Predictors of Teacher Collective Efficacy

Variables	B	SE	β	R^2	Sig.	df	F	Semi-Partial
Model	2.209	.136		.218	.000	2	87.142	
School Mission	.184	.042	.208		.000			.17
Positive school								
learning climate	.212	.033	.305		.000			.25

Note. $R^2 = \text{Adjusted } R\text{-Square}$

Simultaneous multiple regression was employed to examine the best predictors of teacher collective efficacy. The mean, standard deviation, and inter-correlations are displayed in Table 4.11 and Table 4.13. The combination of variables to predict teacher collective efficacy from sub-constructs of instructional leadership namely creating school mission and school learning climate was statistically significant $F(2, 616) = 87.142, p < .0001$. The adjusted R^2 value was 0.218. This indicates that 21.8% of the variance in teacher collective efficacy was explained by the model. Both school mission ($\beta = .21, p < .0001$) and school learning climate ($\beta = .31, p < .0001$) were significant predictors of teacher collective efficacy.

If one wants to predict level of TCE for similar group knowing scores of school mission (SM) and positive learning climate, one can use the regression equation to estimate an individual's score of teacher collective efficacy, the predicted TCE score as following formula:

$$\text{TCE} = B + \beta_1 \times \text{SM} + \beta_2 \times \text{PLC} + e$$

$$\text{TCE} = 2.209 + 0.184 \times \text{SM} + 0.212 \times \text{PLC} + e$$

TCE = Teacher Collective Efficacy (dependent variable)

SM = School Mission (independent variable)

PLC = Positive School Learning Climate (independent variable)

B = Intercept (constant term)

β_1 = Unstandardized coefficient for School Mission

β_2 = Unstandardized coefficient for Positive School Learning Climate

e = Error term (captures the unexplained variance)

4.7. The Results of EFA for Validated and Refined Tools

The fifth purpose of this study is to investigate the effects of sub-components of instructional leadership on sub-components of teacher commitment through teacher collective efficacy as a mediator. Therefore, Exploratory Factor Analysis (EFA) is used as an initial step to ensure the model fit when combining the five validated and refined factors into one model. Then Confirmatory Factor Analysis (CFA) and Structural Equation Modeling will further analyze the relationship and the effects within the model.

Table 4.18: FLs, Eigenvalues, and Variance, and Cronbach's Alpha

Items	Factor loadings					α
	TCO	GC	PLC	TCT	SM	
Factor 1: Teacher commitment (TCO)						0.92
TCO1	.542					
TCO2	.703					
TCO3	.768					
TCO4	.768					
TCO5	.754					
TCO6	.698					
Factor 2: Collective efficacy: Group Competency (GC)						0.85
GC1		.643				
GC2		.673				
GC3		.603				
GC4		.696				
GC5		.638				
GC6		.698				
GC7		.647				
GC8		.639				
GC9		.576				
Factor 3: Positive school learning climate (PLC)						0.88
PLC1			.732			
PLC2			.733			
PLC3			.754			
PLC4			.729			
PLC5			.684			
PLC6			.643			
Factor 4: Teacher commitment to teaching (TCT)						0.89
TCT1				.657		
TCT2				.618		
TCT3				.761		
TCT4				.711		
TCT5				.780		

TCT6	.730
Factor 5: Create school mission	0.86
CSM1	.726
CSM2	.744
CSM3	.704
CSM4	.641
CSM5	.597
Eigenvalue	11.568 3.349 2.56 1.246 1.168
% Variance	35.055 10.148 7.756 3.775 3.54

Prior to EFA, normal distribution was checked through skewness and kurtosis of each item. In this study, the skewness values ranged between -0.85 and -0.22 and the kurtosis values located between -0.61 and $+1.54$, indicating that the data was normally distributed (Hair et al., 2019). Then, the Kaiser-Meyer-Olkin (KMO) and Bartlett Sphericity tests were applied to examine whether the data were appropriate for factor analysis. In this study, the KMO value was 0.95 , indicating that the data were appropriate for factor analysis (Kaiser, 1974). The Bartlett's test of Sphericity was significant [$\chi^2(528) = 11212.633, p < .0001$], suggesting that correlations between items were sufficiently large for factor analysis. In this respect, common factor analysis was used as the factor extraction method with promax as the factor rotation method. EFA results revealed five different factors, including creating school mission, developing positive school learning climate, teacher commitment to school, teacher commitment to teaching and collective efficacy. The model accounted for 60.28 percent of the total cumulative variance. All items in each factor showed loaded values over 0.5 and the eigenvalue above 1 (Hair et al., 2019). The Cronbach α values of each factor were higher than 0.70 , representing high internal consistency reliability for each factor (Hair et al., 2019). More information is illustrated in Table 4.18.

4.8. Results of Confirmatory Factor Analysis (CFA) for Each Construct

4.8.1 Assessing Construct Validity and Model Fit for TCE

The last purpose of this study is to investigate the effects of sub-components of instructional leadership on sub-components of teacher commitment through teacher collective efficacy as a mediator. Therefore, Confirmatory Factor Analysis (CFA) is

employed as an initial step to ensure the model fit when combining the three main constructs into a single model. Then the Structural Equation Modeling (SEM) is conducted to finally analyze the direct and indirect effects of instructional leadership on teacher commitment through collective efficacy serving as a mediator in the following section.

The researcher conducted a confirmatory factor analysis (CFA) to evaluate the construct validity and model fit of teacher collective efficacy. The model fit was assessed employing established criteria: $\chi^2/df < 3.0$, $p < 0.0001$, CFI, TLI > 0.90 , SRMR = 0.08, and RMSEA = 0.08 (Hair et al., 1998; Hu & Bentler, 1999).

In fact, the current researcher examined the construct validity of scale. Confirmatory factor analysis (CFA) was conducted to examine the first-order, one-dimensional factor structure of the collective efficacy. The CFA results showed an acceptable model fit: ($\chi^2/df = 3.01$, $p < 0.0001$, CFI = 0.97, TLI = 0.96, SRMR = 0.028, and RMSEA = 0.057). This is expected in models with large sample sizes and does not undermine the overall fit. The RMSEA value (90% CI: 0.042–0.073) was close to the ideal range, and both CFI (0.97) and TLI (0.96) exceeded the recommended threshold, indicating strong model performance. The SRMR (0.028) further supported the adequacy of the model.

4.8.2 Standardized Factor Loadings of TCE Model

The teacher collective efficacy, the latent variable is measured by nine indicators (GC1 to GC9), all of which demonstrate strong and statistically significant factor loadings ($p < 0.001$). The factor loadings (FL) for all indicators range from 0.65 (GC3) to 0.78 (GC8), indicating a relatively consistent and strong association with the latent variable of collective efficacy. The highest loading is observed for GC8 (0.78) and GC7 (0.76), suggesting that these indicators are the most influential in representing collective efficacy. The lowest loading is observed for GC3 (0.65), which, although still statistically significant, suggests it might be less strongly aligned with the latent construct compared to other indicators. However, it is still above the threshold of 0.50, which is typically considered acceptable in many research contexts (Hair et al., 2019).

All indicators have significant loadings with Est./S.E. values well above the threshold for statistical significance (typically Est./S.E. > 2.0), confirming that the indicators are reliable measures of the latent variable. The range of estimates (0.65 to 0.78) indicates that the indicators generally exhibit strong correlations with Group Competencies, but there may be slight variation in their contributions to the overall

construct. Indicators such as GC1, GC2, GC5, GC6, GC7, GC8 and GC9 contribute more strongly, while GC3 and GC4 contribute less, though still significantly.

In short, the Teacher collective efficacy (TCE) latent variable is well-represented by its nine indicators, all of which show strong and statistically significant loadings. The strongest indicators include GC7 and GC8, while GC3 and GC4 show slightly weaker loadings but are still statistically significant. These findings suggest that the teacher collective efficacy construct is reliably measured by its indicators, with minor variations in the strength of individual indicators.

Table 4.19: Standardized Model Results of TCE

Variable	Indicator	Estimate	S.E.	Est./S.E.	Two-Tailed <i>P</i> -Value
TCE By	GC1	0.72	0.030	20.398	0.000
	GC2	0.73	0.028	23.355	0.000
	GC3	0.65	0.031	18.619	0.000
	GC4	0.69	0.027	24.015	0.000
	GC5	0.75	0.029	21.171	0.000
	GC6	0.71	0.026	25.214	0.000
	GC7	0.76	0.027	24.530	0.000
	GC8	0.78	0.029	21.023	0.000
	GC9	0.73	0.030	20.327	0.000

4.8.3. Assessing Construct Validity and Model Fit for TC

The researcher examined the construct validity of TC scale. Confirmatory factor analysis (CFA) was conducted to examine the second-order, two-dimension factor structure of the teacher commitment and the findings revealed ($\chi^2/df = 3.00$, $p < 0.0001$, CFI = 0.97, TLI = 0.96, SRMR = 0.032, and RMSEA = 0.064). This is expected in models with large sample sizes and does not undermine the overall fit. The RMSEA value (90% CI: 0.055–0.073) was close to the ideal range, and both CFI (0.97) and TLI (0.96) exceeded the recommended threshold, indicating strong model performance. The SRMR (0.032) further supported the adequacy of the model. The CFA results indicated an accepted model fit.

The findings of the CFA provide strong evidence that support the construct validity of the teacher commitment scale. The fit indices collectively suggest that the proposed second-order, two-component model of teacher commitment is a robust representation of the underlying structure of teacher commitment. These results claim that the scale is a reliable and valid instrument for measuring teacher commitment in educational research and practice in Cambodian context.

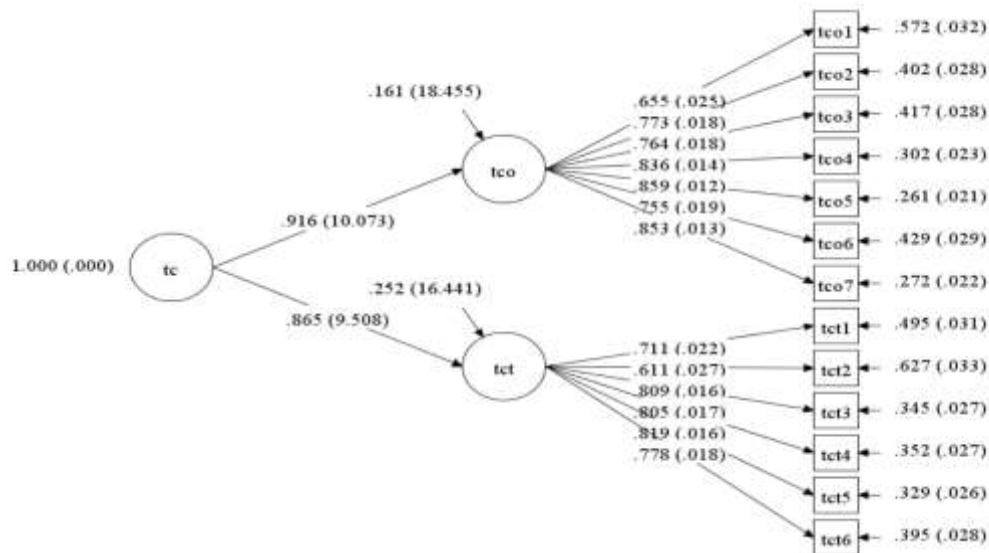


Figure 4.4: The Second-Order of Teacher Commitment Model

4.8.4. Standardized Factor Loadings of TC Model

The teacher commitment, the latent variable is measured by sub –constructs: teacher commitment to organization/school (TCO) and teacher commitment to teaching (TCT). All indicators for TCO (TCO1 to TCO7) show strong and statistically significant loadings ($p < 0.001$) (Hair et al., 2019; Kline, 2016). The factor loadings for all indicators of TCO range from 0.655 (TCO1) to 0.859 (TCO5), indicating the reliability and strength of the relationship between the indicators and the latent variable. TCO5 has the highest loading (0.859), indicating it is the most significant contributor to the latent construct of teacher commitment to organization (TCO). TCO4 (0.836) and TCO7 (0.853) also show strong loadings, underscoring their importance as reliable indicators of TCO.

All the indicators for TCT (TCT1 to TCT6) are also strongly and significantly related to the latent variable ($p < 0.001$) (Hair et al., 2019). The factor loadings for all indicators of TCT range from 0.611 (TCT2) to 0.819 (TCT5), suggesting that the indicators are all meaningful measures of the construct. TCT5 (0.819) is the strongest

contributor to TCT, followed closely by TCT3 (0.809). TCT2 (0.611) shows a relatively lower loading, but it is still above the 0.60 threshold, indicating acceptable strength in the social sciences, though loadings as low as 0.50 may still be acceptable depending on the context (Kline, 2016).

Teacher Commitment (TC) is represented by two indicators: TCO and TCT. The loading for TCO is 0.916, which is quite high but not statistically significant ($p = 0.928$), suggesting that there may be issues with model estimation or multicollinearity (Tabachnick & Fidell, 2019). TCT has a moderate loading of 0.865, also not statistically significant ($p = 0.928$), which may indicate similar model-related issues; such as sample size or model fit (Kline, 2016).

In conclusion, teacher commitment to school (TCO) and teacher commitment to teaching (TCT) are well-represented by their respective indicators, with all loadings being statistically significant and in the strong range (Hair et al., 2019). TCO (particularly TCO5 and TCO7) shows very strong factor loadings, highlighting its key role in teacher commitment to organization. While TCT indicators also show strong loadings, especially TCT5 and TCT3, which are the most significant.

Table 4.20: Standardized Model Results of Teacher Commitment

Variable	Indicator	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
TCO BY	TCO1	0.655	0.025	26.63	0.000
	TCO2	0.773	0.018	43.41	0.000
	TCO3	0.764	0.018	41.478	0.000
	TCO4	0.836	0.014	59.929	0.000
	TCO5	0.859	0.012	69.246	0.000
	TCO6	0.755	0.019	40.035	0.000
	TCO7	0.853	0.013	66.506	0.000
TCT BY	TCT1	0.711	0.022	32.126	0.000
	TCT2	0.611	0.027	22.366	0.000
	TCT3	0.809	0.016	49.376	0.000
	TCT4	0.805	0.017	48.418	0.000
	TCT5	0.819	0.016	51.772	0.000
	TCT6	0.778	0.018	42.582	0.000

TC BY	TCO	0.916	10.073	0.091	0.928
	TCT	0.865	9.508	0.091	0.928

4.8.5 Assessing Construct Validity and Model Fit for IL

The researcher examined the construct validity of scale. Confirmatory factor analysis (CFA) was conducted to examine the second-order, two-dimension factor structure of the instructional leadership ($\chi^2/df = 3.00$, $p < 0.0001$, CFI = 0.97, TLI = 0.96, SRMR = 0.030 and RMSEA = 0.059). This is expected in models with large sample sizes and does not undermine the overall fit. The RMSEA value (90% CI: 0.048–0.071) was close to the ideal range, and both CFI (0.97) and TLI (0.96) exceeded the recommended threshold, indicating strong model performance. The SRMR (0.030) further supported the adequacy of the model. The CFA results indicated an accepted model fit.

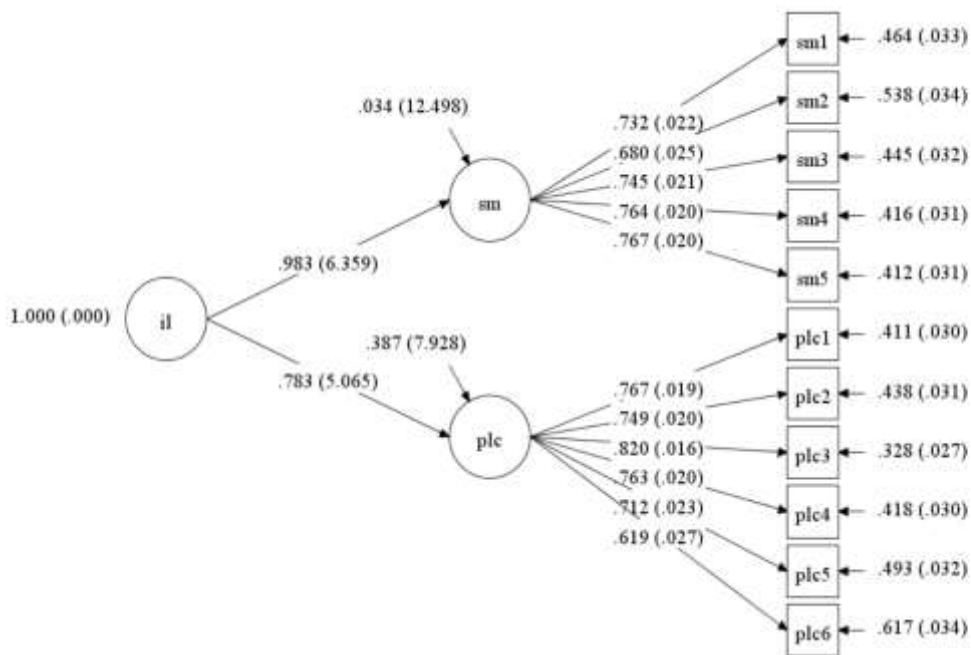


Figure 4.5: The Second-Order of Instructional Leadership Model

4.8.6. Standardized Factor Loadings for IL Model

The Instructional leadership, the latent variable is measured by sub-constructs-creating school mission (SM) and developing positive school learning climate (PLC). All indicators (SM1 to SM5) show strong and statistically significant factor loadings ($p < 0.001$). Estimates range from 0.680 (SM2) to 0.767 (SM5), suggesting that these indicators are reliable measures of the latent variable. The highest loading is for SM5

(0.767), indicating it is the strongest contributor to the latent construct (Hair et al., 2019; Tabachnick & Fidell, 2019).

All the indicators for PLC are measured by PLC1 to PLC6, which also have strong and significant loadings ($p < 0.001$). Loadings for all PLC indicators range from 0.619, (PLC6), to 0.820, (PLC3). The strongest loading is PLC3 (0.820), suggesting it is the most influential indicator for this construct. PLC6 shows the lowest loading (0.619), which might suggest room for improvement in its alignment with the construct (Kline, 2016; Hair et al., 2019).

IL is measured by SM and PLC. The loading for SM is high (0.983) but not statistically significant ($p = 0.877$), which might indicate potential issues with estimation or model fit. Similarly, the loading for PLC is moderate (0.783) but also not significant ($p = 0.877$). This suggests the possibility of model-related concerns, such as multi-collinearity or sample size effects, which might require further investigation (Kline, 2016).

In short, SM and PLC are well-represented by their respective indicators, with all loadings significant and strong (Hair et al., 2019; Tabachnick & Fidell, 2019). For IL by SM and PLC, despite high loading values, the lack of statistical significance ($p = 0.877$) suggests potential model-related concerns, such as multicollinearity or sample size effects, which may need further attention (Kline, 2016)

Table 4.21: Standardized Model Results of IL

Latent Variable	Indicator	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
SM BY	SM1	0.732	0.022	32.866	0.000
	SM2	0.68	0.025	27.172	0.000
	SM3	0.745	0.021	34.796	0.000
	SM4	0.764	0.02	37.513	0.000
	SM5	0.767	0.02	37.888	0.000
PLC BY	PLC1	0.767	0.019	39.688	0.000
	PLC2	0.749	0.02	36.723	0.000
	PLC3	0.82	0.016	50.176	0.000
	PLC4	0.763	0.02	38.918	0.000
	PLC5	0.712	0.023	31.589	0.000

	PLC6	0.619	0.027	22.628	0.000
IL BY	SM	0.983	6.359	0.155	0.877
	PLC	0.783	5.065	0.155	0.877

4.9 CFA Results of All Constructs: Validation and Model Fit

Prior to CFA, normal distribution was checked through skewness and kurtosis of each item. In this study, the skewness values ranged between -0.85 and -0.22 and the kurtosis values located between -0.85 and 1.54, showing normal data (Hair et al., 2019). These values of skewness and kurtosis fall between the acceptable range from -2 to +2, suggesting that data do not violated the from normal distribution. Therefore, the use of maximum likelihood estimation in CFA is appropriate. Ensuring normal distribution enhances the validity and reliability of the factor analysis results in the current study.

Table 4.22: Descriptive Data and Bivariate Correlations of Latent Variables

	TCE	SM	PLC	TCO	TCT
TCE	0.68				
SM	0.48**	0.74			
PLC	0.51 **	0.77**	0.75		
TCO	0.45**	0.55**	0.52**	0.79	
TCT	0.42**	0.48**	0.42**	0.79**	0.76
Mean	3.84	4.25	4.00	4.38	4.42
SD	0.93	0.56	0.71	0.49	0.45
Skewness	-0.22	-0.85	-0.69	-0.52	-0.30
Kurtosis	0.31	1.54	0.45	0.78	-0.61
Notes: ** $p < .01$. Diagonal numbers (in bold) indicate the square root of the AVE.					

CFA results revealed that the measurement model was psychometrically sound, with adequate construct validity. The standardised factor loadings ranged from 0.58 to 0.86. The construct reliabilities ranged between 0.85 and 0.92, and the AVEs fell between 0.53 and 0.62, showing acceptable convergent validity (Hair et al., 2019). The square root of the AVEs ranged from 0.73 to 0.79 and each square root of the AVE of each variable was greater than the correlation between that variable and other variables, demonstrating acceptable discriminant validity (Fornell & Larcker, 1981). In this study,

the whole measurement model with five factors was tested. Results revealed that this model could fit the data well: $\chi^2 (485) = 923.78$, $p < 0.001$, CFI = 0.94, TLI = 0.94, SRMR = 0.040 and RMSEA = 0.046 (90% CI = 0.042–0.049), thus suggesting that all the scales could match the Cambodian context. The results provide strong empirical support for the conceptual framework underlying the current study. In addition, the robust fit indices indicate that the model was appropriate and fit with the data. High values of CFI and TLI also reinforce the model with acceptability across various factors assessed. Finally, the reliability and validity of the measurement model are confirmed, supporting its further studies within similar context. The results were founded on a assumptions of normality which is supported by acceptable normal distribution of all items. This justifies the adoption of maximum likelihood estimation in the confirmatory factor analysis (CFA). The overall results highlight the cultural relevance and good fit of the model.

Table 4.23: FLs, AVEs, CRs, and Cronbach's Alphas of Variables

Variables	Factor loading	AVE/ Square root	CR	α
Teacher collective efficacy	0.58-0.67	0.53/0.73	0.85	0.85
Create school mission	0.68-0.77	0.55/0.74	0.86	0.86
Positive school learning	0.62-0.82	0.56/0.75	0.91	0.88
Teacher commitment to organization	0.66- 0.86	0.62/0.79	0.92	0.92
Teacher commitment to teaching	0.61- 0.82	0.58/0.76	0.89	0.89

The CFA results demonstrate that all indicators significantly contribute to their respective latent variables, with most of standardized loadings consistently above 0.60, indicating acceptable construct validity. The first latent variable, teacher collective efficacy (TCE) was measured by in indicators (GC1 to GC9), with estimates ranging from 0.65 to 0.78, all statistically significant ($p < 0.001$). The highest loading was for GC7 (0.78), and the lowest was for GC3 (0.65), indicating that all items contribute meaningfully to the construct.

The second latent variable, SM construct was measured with five indicators (SM1 to SM5), showing high factor loadings between 0.683 and 0.770, all statistically significant ($p < 0.001$). SM5 (0.770) had the strongest association with the latent

construct. Thirdly, latent variable (PLC) was represented by six indicators (PLC1 to PLC6). Standardized loadings ranged from 0.620 to 0.820, with PLC3 (0.820) being the strongest contributor and PLC8 (0.620) the weakest, all significant at $p < 0.001$.

The fourth latent variables was teacher commitment to school (TCO) measured with seven indicators (TCO1 to TCO7), with loadings spanning from 0.655 to 0.860. TCO5 (0.860) was the most strongly associated item, while TCO1 (0.655) has the lowest loadings. All loadings were statistically significant ($p < 0.001$). Finally, teacher commitment to teaching (TCT) was measured with six indicators (TCT1 to TCT6). The loadings range from 0.612 to 0.819, all significant at $p < 0.001$. TCT5 (0.819) exhibited the strongest relationship with the latent variables, while TCT2 (0.612) showed the weakest. The findings showed that all manifest variables contributed to their respective latent variables. The significant and acceptable factor loadings give strong relationships between indicators and the sub-constructs.

Table 4.24: Standardized Model Results of all Study Variables

Variable	Indicator	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
GC BY	GC1	0.72	0.030	20.398	0.000
	GC2	0.73	0.028	23.355	0.000
	GC3	0.65	0.031	18.619	0.000
	GC4	0.69	0.027	24.015	0.000
	GC5	0.75	0.029	21.171	0.000
	GC6	0.71	0.026	25.214	0.000
	GC7	0.76	0.027	24.530	0.000
	GC8	0.78	0.029	21.023	0.000
	GC9	0.73	0.030	20.327	0.000
SM BY	SM1	0.735	0.022	33.531	0.000
	SM2	0.683	0.025	27.678	0.000
	SM3	0.735	0.022	33.713	0.000
	SM4	0.764	0.02	37.797	0.000

	SM5	0.77	0.02	38.707	0.000
PLC BY	PLC1	0.767	0.019	39.829	0.000
	PLC2	0.751	0.02	37.096	0.000
	PLC3	0.82	0.016	50.59	0.000
	PLC4	0.761	0.02	38.688	0.000
	PLC5	0.713	0.022	31.795	0.000
	PLC6	0.62	0.027	22.754	0.000
TCO BY	TCO1	0.655	0.024	26.762	0.000
	TCO2	0.777	0.018	44.31	0.000
	TCO3	0.762	0.018	41.355	0.000
	TCO4	0.833	0.014	59.411	0.000
	TCO5	0.86	0.012	69.835	0.000
	TCO6	0.754	0.019	39.91	0.000
	TCO7	0.853	0.013	66.823	0.000
TCT BY	TCT1	0.708	0.022	31.834	0.000
	TCT2	0.612	0.027	22.454	0.000
	TCT3	0.808	0.016	49.108	0.000
	TCT4	0.806	0.017	48.712	0.000
	TCT5	0.819	0.016	51.799	0.000
	TCT6	0.779	0.018	42.906	0.000

4.10 The Results of SEM: Effects of IL on TCE and TC

To address the most important part of the fifth research objective, this research utilized a Structural Equation Modeling (SEM) to investigate the relationships between instructional leadership (IL), teacher collective efficacy (TCE) and teacher commitment (TC). Unlike the multiple regressions, which typically examine the effects of

independent variables on the dependent ones, SEM offers particular advantages in analyzing the relationships between the three variables. It is capable of accounting for more complex relationships between all sub-constructs of IL, TC and TCE within a single model, handling both direct and indirect effects simultaneously.

The model was designed to test both direct and indirect effects, where IL is exogenous variable, TC is endogenous variable, and GC acts as the mediator. The model's fit indices suggest an acceptable to good fit for the data (Chi-Square: Significant ($X^2 = 1129, 528, df = 439, p < 0.001$), with large sample sizes and (RMSEA = 0.050 (90% CI = 0.047 — 0.054) indicating good fit. And CFI = 0.94, TLI = 0.924 reflecting acceptable incremental fit (≥ 0.92) and SRMR is equal 0.060, within the acceptable threshold (≤ 0.08). These results confirm that the model is appropriate for examining the hypothesized relationships. The findings gave the good model fit, the following analysis was conducted to evaluate the strong significance of both direct and indirect effects or paths.

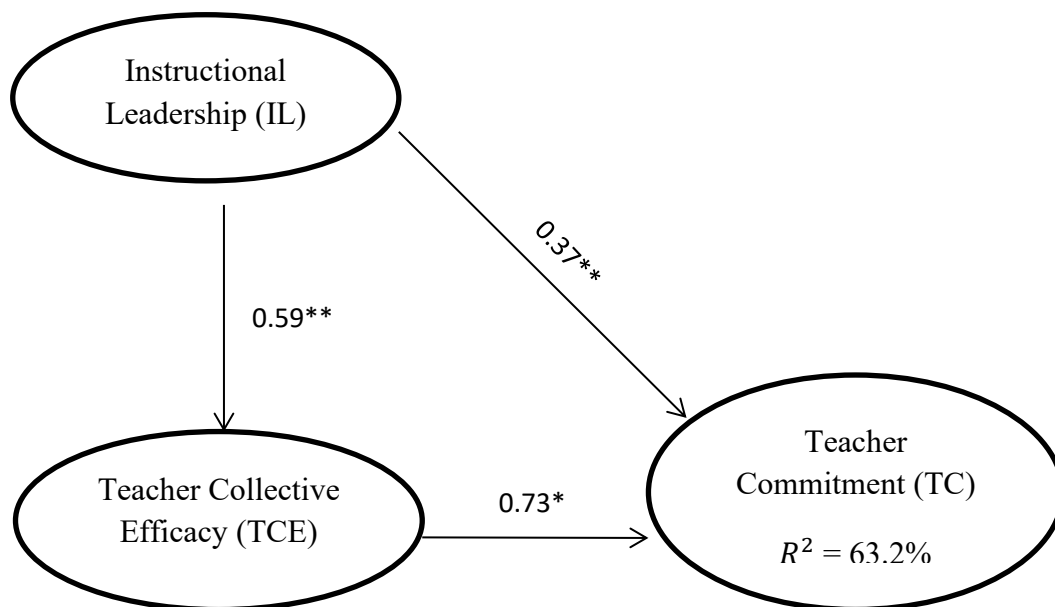
4.10.1 Direct and Indirect Effects of IL on TCE and TC

This sections reports the direct effects among the key constructs, particular focus on instructional leadership as the main independent variable which have the direct effect on teacher commitment through teacher collective efficacy as a mediating variable. Additionally, the analysis reveals the direct impact of collective efficacy on teacher commitment. These relationships are evaluated to better understand the path ways through which IL and TCE shape teacher commitment. The results contribute to more nuanced understanding of how instructional leadership practices influence teacher collective efficacy and teacher commitment. The findings of these direct and indirect effects, this study provides more empirical evidence to support theoretical models connecting instructional leadership to teacher attitudinal outcomes.

Table 4.25: Direct Effects in the Structural Equation Model

Path	Standardized Coefficient (β)	<i>p</i> -value	Effect Type
TCE → TC	0.728**	0.000	Direct Effect
IL → TC	0.365**	0.000	Direct Effect
IL → TCE	0.591**	0.000	Direct Effect
Note: **P, 0.001 indicate statistical significance			

Table 4.25 shows that teacher collective efficacy has strong positive direct effect on teacher commitment ($\beta = 0.728, p < 0.001$), indicating that higher level of teacher collective efficacy are directly related to greater teacher commitment. Instructional leadership has a moderate positive direct effect on teacher commitment ($\beta = 0.365, p < 0.001$), suggesting that higher level of instructional leadership lead to higher levels of teacher commitment. Instructional leadership also has strong positive direct effect on teacher collective efficacy ($\beta = 0.591, p < 0.001$), indicating that stronger instructional leadership improve teacher collective efficacy. These findings support the important role of teacher collective efficacy in bridging the influence of instructional leadership on teacher commitment.



$\chi^2/df = 2.572$; CFI= 0.94; TLI= 0.92; RMSEA=0.050; SRMR = 0.060

Figure 4.6: SEM Results of IL, TC and TCE

Table 4.26: Indirect Effects in the Structural Equation Model

Path	Indirect Effect	Standardized Coefficient	
	Calculation	(β)	p-value
IL $\rightarrow$ GC $\rightarrow$ TC	0.591 * 0.728	0.430**	0.000

Note: ** $P < 0.001$ indicate statistical significance

Table 4.25 and Table 4.26 showed that the direct and indirect effect of instructional leadership (IL) on teacher commitment (TC) through teacher collective efficacy (TCE) is statistically significant ($\beta = 0.43, p < 0.0001$). This finding suggested that instructional leadership affects teacher commitment both directly ($\beta = 0.365, p <$

0.001) and indirectly through teacher collective efficacy ($\beta = 0.430, p < 0.001$).

Table 4.27: Total Effects in the Structural Equation Model

Path	Direct Effect	Indirect Effect	Total Effect
IL $\rightarrow$ TC	0.365**	0.430**	0.795**
Note: **P < 0.001 indicate statistical significance			

Table 4.27 shows that there is a total effect of instructional leadership on teacher commitment ($\beta = 0.795, p < 0.0001$) through teacher collective efficacy as a mediator. This suggests that instructional leadership have a substantial overall effect on teacher commitment, with a combination of both direct and indirect effects. The value of R^2 for teacher commitment equal 0.632, suggesting that 63.2% of the variances in teacher commitment explained by instructional leadership directly and indirectly through collective efficacy (See figure 4.7).

4.10.2 Effects of IL on TC through TCE across All Factors

This structural equation modeling examine the influence of dimensions of instructional leadership ($df = 439, p < 0.001$), with large sample sizes and (RMSEA = 0.050 (90% CI = 0.047 — 0.054) indicating the acceptable range. And CFI = 0.94, TLI = 0.92 reflecting acceptable incremental fit (≥ 0.92) and SRMR is equal 0.060, within the acceptable threshold (≤ 0.08). These results confirm that the model is appropriate for examining the hypothesized relationships. In short, the SEM findings provide empirical support for the theoretical framework, suggesting that the sub-components of IL play a crucial role in enhancing teacher commitment and collective efficacy. The alignment and contrast to this study will be discussed in Chapter 5.

Table 4.28: Direct Effect of IL on TC through TCE across All Factors

Path	Standardized Coefficient (β)	p-value	Effect Type
GC $\rightarrow$ TCO	0.818	0.000	Positive
			(Significant)
SM $\rightarrow$ TCO	-0.121	0.127	Negative (Not
			Significant)
PLC $\rightarrow$ TCO	.266	0.002	Positive
			(Significant)

GC → TCT	0.182	0.001	Positive (Significant)
SM → TCT	-0.348	0.006	Negative (Significant)
PLC → TCT	0.909	0.000	Positive (Significant)
SM → GC	-0.107	0.377	Negative (Not Significant)
PLC → GC	0.649	0.000	Positive (Significant)
Note: ** <i>P</i> , 0.001 and <i>p</i> < 0.05 (*) indicate statistical significance			

Table 4.28 showed that school mission (SM) has a negative effect on both effects on teacher commitment to organization ($\beta = -0.12$, $p < 0.0001$) and teacher commitment to teaching ($\beta = -0.35$, $p < 0.05$). Positive school learning climate has significant direct effects on teacher commitment to organization ($\beta = 0.27$, $p < 0.05$) and teacher commitment to teaching ($\beta = 0.909$, $p < 0.000$). Positive school learning climate has a strong positive direct effect on collective efficacy ($\beta = 0.65$, $p < 0.0001$) while school mission has a non-significant negative effect on teacher collective efficacy ($\beta = -0.11$, $p = 0.038$).

Table 4.29: Indirect Effect of IL on TC via TCE across All Factors

Path	Indirect Effect Calculation	Standardized Coefficient (β)	<i>p</i> -value	Effect Type
SM → GC → TCO	-0.107×0.818	-0.09	0.127	Indirect Effect
PLC → GC → TCO	0.649×0.818	0.53	<0.001	Indirect Effect
SM → GC → TCT	-0.107×0.182	-0.02	0.377	Indirect Effect
PLC → GC → TCT	0.649×0.182	0.12	<0.001	Indirect Effect
Note: ** <i>P</i> < 0.001 and <i>p</i> < 0.05 (*) indicate statistical significance				

Table 4.29 shows that school mission has no significant negative indirect effects both teacher commitment to organization ($\beta = -0.09$, $p = 0.13$) and teacher commitment to teaching ($\beta = -0.02$, $p = 0.38$) through teacher collective efficacy. Positive school learning commitment has a significant positive indirect effect on both teacher

commitment to organization ($\beta = 0.53, p < 0.0001$) and teacher commitment to teaching ($\beta = 0.12, p < 0.001$) through teacher collective efficacy, indicating that positive school learning climate improve teacher commitment via its influences on teacher collective efficacy.

Table 4.30: Total Effects of IL Dimension on TC Dimensions via TC

Path	Direct Effect	Indirect Effect	Total Effect	P-value	Effect Type
TCO ON:					
GC → TCO	0.82	-	0.82	<0.001	Direct Effect
SM → TCO	-0.12	-	-0.12	0.127	Direct Effect
PLC → TCO	0.27	-	0.27	0.002	Direct Effect
TCT ON:					
GC → TCT	0.18	-	0.18	0.001	Direct Effect
SM → TCT	-0.35	-	-0.35	0.006	Direct Effect
PLC → TCT	0.90	-	0.90	<0.001	Direct Effect
GC ON:					
SM → GC	-0.11	-	-0.11	0.377	Direct Effect
PLC → GC	0.65	-	0.65	<0.001	Direct Effect
Indirect Effects via GC:					
SM → GC → TCO	-0.11	$-0.11 * 0.82 = -0.09$	-0.21	0.127	Indirect Effect
PLC → GC → TCO	0.27	$0.65 * 0.82 = 0.53$	0.80	<0.001	Indirect Effect

						Indirect
SM → GC → TCT	-0.35	-0.11 * 0.18 = -0.02	-0.37	0.006	Effect	
						Indirect
PLC → GC → TCT	0.800	0.65 * 0.18 = 0.12	1.00	<0.001	Effect	

(PLC = Positive school learning climate, GC = Group Competency, SM = School Mission, TCO = Teacher commitment to organization, TCT = Teacher Commitment to Teaching)

Table 4.30 shows that school mission (SM) has no statistically significant total effect on teacher commitment to organization ($\beta = -0.12, p = 0.13$), and a negative total effect on teacher commitment to teaching ($\beta = -0.37, P < 0.05$). However, developing positive school learning climate reveals statistically significant total effect on both teacher commitment to organization ($\beta = 0.80, p = 0.05$), and teacher commitment to teaching ($\beta = 0.90, p < 0.00$). This clearly suggest that there is significant relationship between developing a positive school learning climate and teacher commitment to organization and teacher commitment to teaching.

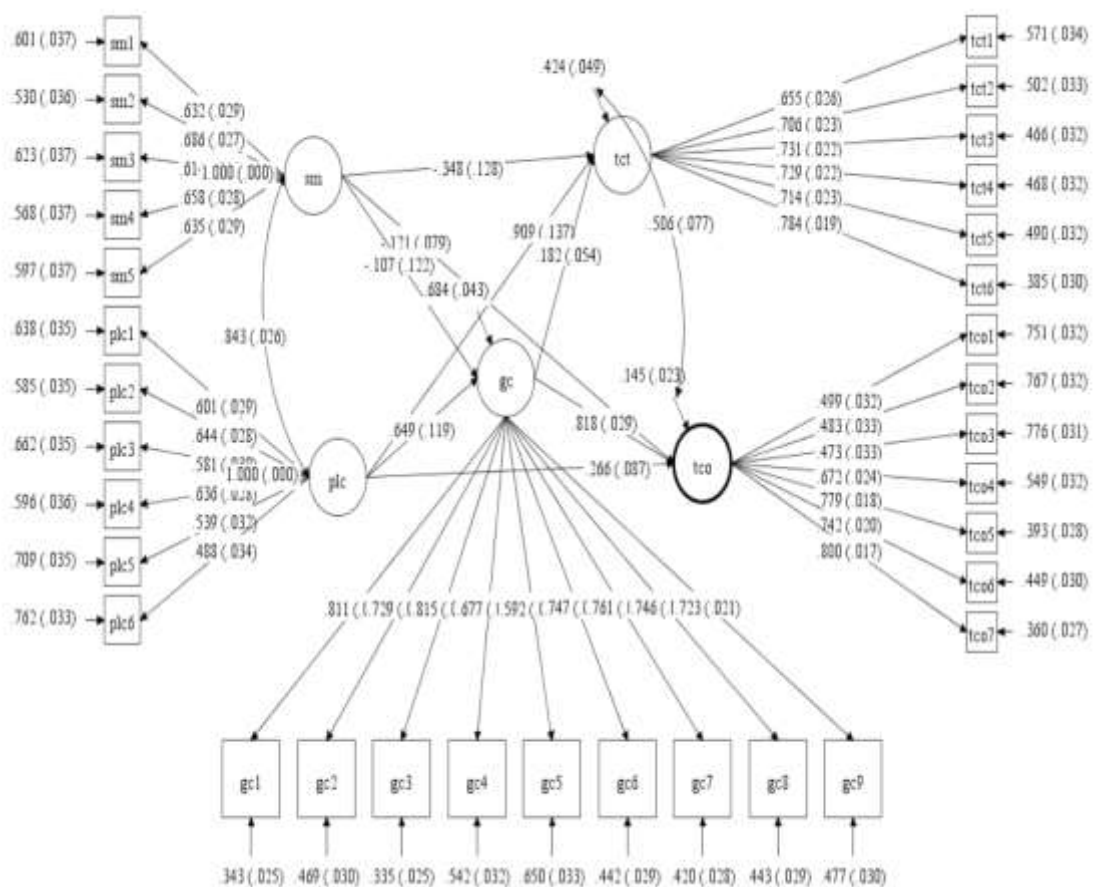


Figure 4.7: Standardized Coefficients of TCE Mediating IL-TC Relationship

The Structural Equation Modeling (SEM) study determined the R-squared values for the latent variables, teacher commitment to teaching (TCT), teacher commitment to organization (TCO), and group competencies (GC). Regarding TCO, the model provides an explanation for a significant percentage of the variance, as indicated by an R-squared estimate of 85.5%. The highly statistically significant association between the predictors and TCO (p-value = 0.000) suggests that the model's included predictors exert a significant and powerful influence on TCO. By comparison, the model is also able to provide a significant explanation for GC, which accounts for around 31.6% of its variance. This indicates that the predictors have a considerable effect on the variable in question. Furthermore, the p-value for GC, which is 0.000, provides additional evidence that this association is statistically significant. On the other hand, when it comes to TCT, the model explains high fraction of the variation (an R-squared estimate of 0.576), and the effect is statistically significant, as demonstrated by high estimate of 0.576. These data suggest that the model explains teaching commitment to teaching most effectively, with a strong explanatory power explaining the variances in teacher commitment to teaching, and a modest yet significant effect for group competency.

Table 4.31: R-squared Estimate by IL

Variables	Estimate	S.E	East./S.E.	Two-Tailed F-value
TCT	0.576	0.049	11.841	0.00
TCO	0.855	0.023	37.876	0.00
GC	0.316	0.043	7.382	0.00

CHAPTER 5

DISCUSSION

This chapter presented key insights by summarizing the main research findings and discussing them in relation to existing literature across various contexts. Guided by the research objectives, the analysis examined the validity of the study instrument, assessed teachers' perceptions of the core research components including the sub-components of instructional leadership, teacher collective efficacy and teacher commitment as well as compared these perceptions across different regions. Additionally, it explored the relationships among key variables, providing nuanced insights into the impact of school principals' Instructional Leadership (IL) on Collective Teacher Efficacy (TCE) and teacher commitment.

5.1 Validating IL, TCE, and TC: Exploratory and Confirmatory Factor Analysis

5.1.1 Validating IL, TCE, and TC: Exploratory Factor Analysis

A significant amount of information regarding the structure of the data is provided by the Exploratory Factor Analysis (EFA) that was carried out in this investigation. The skewness and kurtosis values showed that the data were almost normally distributed, which meant that the factor analysis was valid (Hair et al., 2019). We tested for normality, and the results showed that the data followed a nearly normal distribution. Kaiser (1974) said that the Kaiser-Meyer-Olkin (KMO) value of 0.95 and the significant results of Bartlett's Test of Sphericity showed that the data was good enough for factor analysis.

The EFA discovered a five-factor constructs. These factors are as follow: The creation of a school mission, the development of a positive school learning climate, the commitment of teachers to the school, the commitment of teachers to teaching, and collective efficacy. Considering that these components accounted for 60.28 percent of the overall variation, it is clear that they provide a complete representation of the key structures. All items had factor loadings greater than 0.5 and eigenvalues greater than 1, confirming the factor structure's robustness. All of the components had Cronbach's alpha values that were greater than 0.70, which indicates that there was a high level of internal consistency (Hair et al., 2019).

However, two main sub-constructs were removed. Managing instructional program of IL and commitment to students from teacher commitment were respectively

deleted due to low factor loading, cross-factor loadings and overlapping found in Cambodian context.

5.1.1.1 Exploratory Factor Analysis: Validating the Scales of IL

The findings support the exclusion of Managing Instructional Programs (MIP), which consisted of six items. This result suggests that, within the Cambodian context, instructional leadership is best represented by only two dimensions: Creating a School Mission and Developing a Positive School Learning Climate. The removal of the MIP construct indicates that certain traditional components of instructional leadership may not align with the realities of Cambodian school leadership practices.

This result is consistent with prior studies conducted in other Asian contexts, where similar components of instructional leadership—particularly those related to curriculum coordination—have been considered less relevant. Rodrigues and Ávila de Lima (2024) found that in some societies, principals are generally not involved in direct classroom activities, even though many possess teaching backgrounds that inform their leadership approach. Antoniou and Lu (2018), for example, claimed that several items from the PIMRS instrument were not suitable for assessing instructional leadership in China, where the Ministry of Education strictly controls the curriculum, leaving principals with limited authority to develop instructional content. Similarly, Hallinger and Walker (2017), in their comparative study of five Asian countries—China, Taiwan, Malaysia, Singapore, and Vietnam—found that school leaders often have minimal influence over curriculum development. These systemic constraints hamper the ability of principals to fulfill the instructional leadership function of coordinating the curriculum, as originally conceptualized by Hallinger and Murphy (1985). The Cambodian context seems to reflect a similar structural limitation, reinforcing the appropriateness of excluding the MIP dimension from the instructional leadership framework.

Two key components of Instructional leadership have emerged from the findings: school mission and the development of positive school learning climate. The former is comprised of two sub-components- framing the school goals, and communicating the goals. Each sub-component consists of its specific items which can serve as indicators for school principals to implement within their schools. The latter is comprised of five sub-constructs: protecting instructional time, maintaining high visibility, providing incentives for teachers, promoting professional development and providing incentives for learning. Each of the five sub-components is also associated

with specific items which can be used as indicators by schools and relevant stakeholders to monitor and evaluate the school principals' instructional leadership practices.

Both the removed construct of instructional leadership, managing instructional program statistically, and the remaining constructs- school missions and development of positive school learning climate emerged in Cambodian context as well as their sub-components and items are all consist with some components of Cambodia school principals' roles and duties. There are 9 components in their roles: (1) education authority; (2) administrative officer; (3) pedagogy mentor; (4) permanent inspector; (5) education negotiator; (6) educator; (7) service provider; (8) counselor; (9) community development agency. The three components of IL are also consist with duty components of Cambodian school principals (MoEYS, 2016).

Although Cambodian school principals do not have authority to coordinate or develop school curriculum due to centralized curriculum management, some components of principals' roles including pedagogy, permanent inspector, and counselor are still consistent with some items of sub-components of managing instructional program such as supervising and evaluating instruction, and monitoring student progress. For example, as a role of pedagogical mentor, Cambodian school principals are expected to (1) provide feedback and suggest pedagogy and teaching techniques to teachers, (2) make the inspection plans, (3) visit the classroom and give comments to improve teaching and learning processes, (4) observe the class and address the teaching and learning issues.

Base on exploratory factor analysis, the component of managing instructional program was removed in this study. Therefore it can be concluded that principals in secondary resource school may not fully exercise their roles as pedagogical mentors, educational inspectors and counselors as defined by the Ministry of Education, Youth and Sport.

One item of one of school principal's roles, namely "principal as an educator" aligns with one item of provide professional development, a sub-component of developing positive school learning climate. Cambodian school principals have 4 duties – (1) administrative duties; (2) pedagogical and technical duties; (3) communication duties (MoEYS, 2016). While the very few items of school principal's administrative duty are consistent with school mission, a sub-component of IL. For example, these items include "school principals have duty to make school vision, mission, and action plans to develop the organization" and "they have duty to form organizational structure

and job description”. A few items of pedagogical and technical duty such as “school principal teaches students when the teacher is absent” and the items of communication duty such as “ school principal should be available at school ground” or “School principal should appear in front of classrooms” or “teachers and students can see school principals most of the time” are respectively consistent with only some items of protect instructional time, and high visibility, the two sub-components of developing positive school learning climate.

5.1.1.2 Exploratory Factor Analysis: Validating the Scales of TCE

Taken together, the findings provide empirical evidence that Collective Teacher Efficacy is best represented as a uni-dimensional construct in the Cambodian context. This result aligns with conclusions from previous studies (Goddard, 1998; Tschannen-Moran & Hoy, 1998), which also conceptualized collective efficacy as a single, cohesive factor. The results reveal the recovery of a single component from a one-factor solution, which accounts for 64.10% of the variance and has an eigenvalue of 7.69 (Goddard, 2002). However, this finding was contrast to Goddard (2000) who claimed that teacher collective efficacy is composed of two components- Task difficulties and group competency.

5.1.1.3 Exploratory Factor Analysis: Validating Scale of TC

The findings from EFA analysis was similar to Meyer et al. (1993), which is briefly described in this chapter. Based the EFA analysis, the original dimensions of teacher commitment with 3 sub-components, from the Western context are reduced to only two components in Cambodian context. The two main constructs are teacher commitment to school and teacher commitment to teaching. This finding align with Lee and Lim (2018) who found that teacher commitment to teaching (TCT) and teacher commitment to students (TCS) share key items, an factors often overlap. Antoniou and Lu (2018) also claimed that teacher commitment to teaching (TCT) and teacher commitment to students (TCS) are closely linked. Roth et al. (2007) explored teacher commitment and found that the dimensions of commitment to students and commitment to teaching are sometimes not easily separable, as teachers who are highly committed to their profession are often simultaneously very dedicated to their students. Their study indicated that the same items measuring commitment to students often also reflect the dedication to teaching itself, supporting the idea that the constructs may not be entirely distinct. Meyer & Allen’s (1991) Three-Component Model of Commitment includes elements that could be interpreted as overlapping between organizational commitment,

commitment to students, and professional commitment. However, this finding is contrast to Thien and Razak (2014) who identified four core dimensions of teacher commitment: (a) commitment to profession; (b) commitment to students; (c) commitment to teaching; and (d) commitment to school.

5.1.2 Confirmatory Factor Analysis

The investigation of Confirmatory Factor Analysis (CFA) results demonstrate the measurement model's reliability and authority. Normality was evaluated using skewness and kurtosis before conducting the CFA. The results indicated a normal distribution of the data, with values ranging from -0.85 to 1.54 (Hair et al., 2019) which is a necessary assumption prior to conducting the CFA. The results of the CFA offered compelling evidence of the model's ability to accurately represent psychometric data. The items were found to have a satisfactory level of correlation with their respective factors, as indicated by the fact that the standardized factor loadings ranged from 0.58 to 0.86. According to these loadings, each factor appears to be adequately represented by the items, which lends credence to the validity of the models used for measurement. The construct reliabilities, which are between 0.85 and 0.92, are also much higher than the threshold of 0.70. This means that the components are very consistent with each other (Hair et al., 2019).

The Average Variance Extracted (AVE) values were found to be within the range of 0.53 to 0.62, which is indicative of convergent validity that is satisfactory. According to Hair et al. (2019), AVE values that are greater than 0.50 are generally considered to be ideal. In fact, values that fall between 0.53 and 0.50 are still considered to be acceptable because they suggest that the factors explain a significant percentage of the variance in the items.

Each square root of the AVE was larger than the correlation between that component and the other factors, ranging from 0.73 to 0.79. The difference between the square roots of the AVEs was positive. According to Fornell and Larcker (1981), this lends credence to the discriminant validity of the model, which suggests that the elements under consideration are distinct from one another. The researcher also used a number of other fit indices to evaluate the measurement model's overall fit. Upon conducting the chi-square test, it was found that the result was statistically significant ($\chi^2(485) = 923.78, p < 0.001$).

However, it is crucial to acknowledge that the chi-square statistic is highly sensitive to the sample size. The most important thing is that both the Comparative Fit

Index (CFI) and the Tucker-Lewis Index (TLI) were higher than the needed 0.90 (CFI = 0.94, TLI = 0.94), which means that the model fits the data well. With a 90% confidence level between 0.042 and 0.049, the Standardized Root Mean Square Residual (SRMR) value of 0.040 and the Root Mean Square Error of Approximation (RMSEA) value of 0.046 show that the model fits the data well. Both of these indices fall within the acceptable range (Hair et al. (2019).

5.2 The Levels of Teachers' Perceptions of IL, TCE and TC

5.2.1 The Levels of Teachers' Perceptions of IL

The current finding of the study showed that teachers have excellent ratings for overall instructional leadership (IL) ($M = 4.13$, $SD = 0.58$) and its sub-constructs, such as school mission ($M = 4.25$, $SD = 0.56$) and positive school learning atmosphere ($M = 4.00$, $SD = 0.71$). The research also reveals that teachers have high perceptions of instructional leadership (IL) in their schools. These results, which are backed up by high reliability coefficients (Cronbach's alpha values between 0.87 and 0.91) are in line with other research done in Iranian schools, for example, Hosseingholizadeh et al. (2020) found similar high ratings of IL ($M = 4.19$, $SD = 0.60$), school mission ($M = 4.26$, $SD = 0.70$) and positive school learning climate ($M = 4.11$, $SD = 0.72$). Ail et al. (2015) found that teachers in Malaysia thought their principals were good at creating a good learning environment ($M = 3.95$, $SD = 0.55$) and a school mission ($M = 4.19$, $SD = 0.54$).

On the other hand, the present findings contradict some of the earlier studies. According to Bellibas et al. (2016) discovered that teachers in 23 primary schools in Turkey rated their principals' instructional leadership significantly lower. This was especially true in areas such as school mission ($M = 3.16$), managing instructional program ($M = 2.95$), and developing school learning climate ($M = 3.28$). Similarly, according to the perceptions of the teachers who work in Turkish primary schools, principals do not typically possess instructional leadership qualities that are particularly strong. To be more specific, the teachers believe that the principals carry out their instructional leadership responsibilities on an "occasional" basis. This belief is based on the survey's subcategory averages, which varied from 3.27 to 3.57 (Gumus & Akcaoglu, 2013).

One of the elements contributing to the high levels of teachers' attitudes toward their principal's instructional leadership could be the potential influence of social expectations on the evaluations they provide. It is probable that there is a cultural

expectation in Cambodia, as well as in many other countries, for teachers to provide favorable scores to their school directors, particularly when responding to surveys regarding leadership. This is especially expected when the teachers are asked to rate their own performance. Subjecting teachers to social or professional pressure to report high levels of satisfaction with their principals' leadership may lead to inflated perceptions of instructional leadership. This is especially true in the event that instructors are under pressure to report high levels of pleasure. On the other hand, in Turkey, where teachers may feel more empowered to express their dissatisfaction with leadership, the ratings could potentially reflect a more critical and realistic perspective on the performance of school directors.

5.2.2 Levels of Teachers' Perceptions of TC

There is a high level of commitment across all of the sub-constructs of teacher commitment, according to the findings of this study on instructor dedication in Cambodia. The overall grand mean of teacher commitment is 4.40, with a standard deviation of 0.44. The commitment to teaching with a mean of 4.42 and a standard deviation of 0.45 is somewhat higher than the commitment to the school with a mean of 4.38 and a standard deviation of 0.49. According to these findings, Cambodian teachers, in general, have a high sense of responsibility and dedication to both teaching and school. Moreover, the high reliability of the teacher commitment scale, with Cronbach's alpha values ranging from 0.89 to 0.94, further supports the consistency and robustness of these findings.

Compared to the results of previous research in Malaysia, it seems that teachers in Cambodia demonstrate significantly higher levels of commitment. In Malaysia, there is a greater degree of diversity in the level of dedication to school across instructors who belong to different ethnic groups. Malay and Chinese teachers report comparable levels of dedication to the school ($M = 2.94$ and $M = 2.87$), which are slightly higher than the levels reported by Indian teachers ($M = 2.67$). When it comes to the level of dedication that teachers have to their profession, Indian teachers ($M = 2.18$) reported lower levels of commitment than both Malay teachers ($M = 2.73$) and Chinese teachers ($M = 2.69$) (Thien & Razak, 2014). Cambodian teachers, on the other hand, indicate much greater levels of dedication ($M = 4.40$ overall), which suggests that Cambodian teachers are generally more optimistic about their professional tasks in comparison to their counterparts in Malaysia.

It is possible that cultural influences or social expectations could cause an effect

on the high levels of commitment that teachers in Cambodia have perceived, which could potentially contribute to instructors having exaggerated perceptions of their own degree of dedication. It is possible that in some societies, such as Cambodia, there is a desire to present oneself in a manner that is socially desirable, particularly when responding to human behavior. Due to the fact that it is often viewed as a virtue to be committed to one's career, particularly in the field of education, teachers may experience pressure from their colleagues and school leaders to rate a strong dedication to their schools and teaching. In the event that this is the case, the responses may not only represent their actual levels of commitment but also a cultural inclination to fit with societal norms, which may result in an overestimation of their actual level of commitment. It is possible that teachers in Cambodia, a country that places a high emphasis on respect for authority and social conventions, are more likely to give themselves a favorable rating. This is due to their desire to meet expectations and conform to the perceived "correct" response within the study's context.

5.2.3 Levels of Teachers' Perceptions of TCE

The current findings from Cambodia show a moderately high perception of collective efficacy among teachers. The mean score was 3.84, and the standard deviation was 0.49, with Cronbach's alpha of 0.85. Despite the fact that the score is not particularly high, this indicates that Cambodian educators have a broad belief in the efficacy of their combined efforts toward the achievement of educational goals. When comparing to the findings from the United States, in which teachers perceive the collective efficacy scores for various districts ranged from 2.72 to 3.27 (Angelle & Teague, 2014).

Cambodian teachers perceived higher levels of collective efficacy when comparing to the previous findings conducted in the United States (Angelle & Teague, 2014; Ware & Kitsantas, 2007). These emerging results may have occurred due to cultural setting. Many of the societies that are located in Southeast Asia, like Cambodia, place a significant amount of importance on the concepts of community, cooperation, and collective responsibility in educational atmospheres. The cultural emphasis on unity and shared aims may lead educators to perceive their collaborative efforts as more effective. The cultural emphasis on teamwork and solidarity may generate more positive impressions of collective efficacy, even if objective metrics of school achievement may not be as high as they otherwise would be.

It is also possible that Cambodian teachers' self-assessments are influenced by

cultural factors, such as respect for authority and the value placed on maintaining positive relationships within a community. In this context, teachers may rate their collective efficacy highly to reflect a sense of group cohesion and shared purpose, even if it is not entirely aligned with objective measures of success. This cultural inclination to promote a positive image of the group could lead to a slightly inflated perception of their collective efficacy.

The overestimation of self-assessments by Cambodian educators may also be due to cultural influences, such as the need to establish organizational links within a community and the revealed respect for their colleagues in the context of inflation. In this setting, it is conceivable for teachers to assign a high score to teacher collective efficacy, even if it does not correlate entirely with objective assessment of performance. This is because teachers have the ability to evaluate their own performance. This represents both the sense of social cohesion and the shared purpose it embodies. This cultural inclination to depict the group in a positive light may lead to a modest overestimation of the group's collective efficacy at the expense of the group's individual efficacy.

5.3. The Regional Comparison of Teachers' Perceptions of IL, TCE, and TC

5.3.1 The Regional Comparison of Teachers' Perceptions of IL

According to the findings of this study, there are considerable regional differences in the ways that teachers perceive the competence of principals to establish a school mission. Teachers in the Coastal and Sea regions had a greater rating of their principals' creating school mission compared to those in the Central Plain region ($F(2, 616) = 8.374, p < 0.0001$). On the other hand, the perception of the school mission did not significantly change between Tonle Sap and the other two regions, suggesting a more uniform perspective of leadership in the regions.

Teachers in all three regions (Coastal and Sea, Central Plain, and Tonle Sap) reported similar impressions of the school learning climate ($F(2, 616) = 2.402, p > 0.05$), which indicates that administrators were equally effective in establishing a pleasant learning environment. To compare with previous studies, research from Thailand, which found geographical disparities in instructional leadership, is consistent with this finding. Hallinger & Lee (2013) ranked principals in the Central region higher than those in the South region. The Thai study, on the other hand, discovered that there were no significant differences between other locations, which is comparable to the

consistent assessments of the learning climate in Cambodian academic institutions.

During the process of analyzing the learning climate in schools, educators from all three regions reported having similar perceptions regarding the effectiveness of principals in creating a favorable atmosphere for learning. As a result of the lack of substantial geographical differences in teacher evaluations of school learning climate, it appears that principals in various regions are equally capable of establishing a helpful and pleasant atmosphere within the school. This finding contrasts with the findings of Hallinger and Lee's (2013) study in Thailand, which found geographical differences in the perception of instructional leadership. This study in Cambodia reveals a more consistent assessment of the learning climate, which suggests that regional context may play a more significant role in how leadership is perceived in mission-setting rather than in environmental climate-building. While the research in Thailand identified regional differences in leadership effectiveness between the Central and South regions, this study in Cambodia reveals a more consistent assessment of the learning climate.

5.3.2 The Regional Comparison of Teachers' Perceptions of TCE

According to the findings of the current research, there were no significantly different levels of teacher collective efficacy (TCE) between the various regions in Cambodia ($F(2, 616) = 1.40, p > 0.05$). This suggests that educators across Cambodia's various regions hold similar beliefs about their collective ability to influence student outcomes. This stands in stark contrast to the findings from the United States, which revealed significant geographical disparities in CTE. According to the findings of Angelle and Teague (2014), District B ($M = 3.27, SD = 0.54$) reported a higher collective efficacy compared to Districts A ($M = 2.81, SD = 0.66$) and C ($M = 2.72, SD = 0.64$). This was accompanied by a significant effect size ($F(2, 360) = 26.54, p = 0.001, \eta^2 = 0.13$).

The absence of major variations in Cambodia is likely a consequence of a more consistent educational environment; this is the most likely explanation. National legislation, shared educational systems, and cultural norms that emphasize community support and collaborative effort create this atmosphere. Furthermore, shared education systems are among the elements that contribute to the formation of this atmosphere. Diverse regional variances in the United States, on the other hand, may be the result of a variety of variables, including district policies, leadership styles, and resources. These extraneous elements could also play a part. Cambodia's perceptions of collective efficacy have stayed the same over time. This suggests that differences in regional traits

may not have as big of an impact as differences in school culture and how teachers work together. Tschannen-Moran and Barr (2004) underline the necessity of cultivating an atmosphere that supports collaboration in order to improve the efficacy of educators. This is an extra point of interest that is worth mentioning. Despite the fact that there are no variances that are exclusive to a given place, this theory is still applicable.

Future research could further explore how factors such as leadership, professional development, and teacher collaboration contribute to collective efficacy in Cambodia. Comparative studies across Southeast Asia would also be valuable in understanding how cultural and regional factors influence teacher perceptions in different educational systems.

5.3.3 The Regional Comparison of Teachers' Perceptions of TC

This study found significant regional differences in teacher commitment to their institutions. To be more specific, teachers in the Coastal and Sea regions reported considerably higher levels of commitment to the school than its counterparts in the Tonle Sap and Central Plain regions, as revealed by the Games-Howell post hoc test ($F(2, 616) = 11.678, p = 0.40$). This was the main finding of the study. This shows that geographical characteristics may play a role in molding teachers' attachment to their schools, with teachers in the coastal and sea regions perhaps benefiting from a better sense of community, leadership, or available resources that create more dedication. Also, this suggests that teachers in other regions may not be as attached to their schools as teachers in others. Teachers in the Tonle Sap and Central Plain regions demonstrated no significant variations in their level of commitment. This suggests that instructors in these locations estimate their school commitment similarly.

At the same time, it was noted that there were substantial geographical differences in the level of commitment to teaching ($F(2, 616) = 5.859, p < 0.05$). There were no significant differences found between Tonle Sap region and the other two regions, although teachers in the Coastal and Sea regions rated their commitment to teaching higher than teachers in the Central Plain region. Other regions did not have any significant differences. Based on these findings, it appears that the elements that influence teacher commitment may vary depending on the geography. It is possible that teachers in the Coastal and Sea regions may have more support, better opportunities for professional development, or stronger school cultures, all of which contribute to a greater commitment to teaching.

These results align with previous research that has emphasized the influence of

cultural and contextual factors on the degree of dedication that teachers exhibit. Within the context of Malaysian primary schools, for instance, Abd Razak et al. (2010) discovered that cultural orientation and working conditions within the school had a direct influence on the level of commitment displayed by teachers. Thien and Razak (2014) discovered that there were substantial differences in the level of commitment shown by teachers across different ethnic groups in Malaysia. This finding suggests that contextual factors, such as culture and working environment, have a role in shaping the level of professional engagement displayed by teachers. In accordance with the findings of this research, the researcher highlights the significance of regional and contextual factors in affecting the level of commitment exhibited by teachers. Specifically, teachers in certain locations demonstrate a stronger connection to their schools and teaching jobs than teachers in other places.

The current results indicated that local factors like the effectiveness of leadership, the school culture, and the available resources can influence the degree to which teachers feel committed to schools and teaching, in spite of the general recognition of teachers' commitment. It is possible that more research may investigate the specific regional elements that lead to these variances in teacher commitment. This would be beneficial that it could help influence efforts to improve teacher involvement across a variety of classroom settings.

5.4 The Relationship among IL, TCE and TC

The results of the Pearson correlation analysis revealed significant and positive relationships between key dimensions of instructional leadership and teacher-related outcomes. Specifically, teachers' perceptions of principals' roles in creating a school mission and fostering a positive school learning climate were moderately correlated with teacher commitment to both the school and teaching. Creating a school mission showed a moderate positive correlation with teacher commitment to school ($r = 0.49, p < 0.001$) and to teaching ($r = 0.42, p < 0.001$), while the school learning climate was similarly correlated with commitment to school ($r = 0.47, p < 0.001$) and to teaching ($r = 0.40, p < 0.001$).

Additionally, teacher collective efficacy (TCE) was significantly associated with both instructional leadership sub-constructs—creating a school mission ($r = 0.41, p < 0.001$) and developing a school learning climate ($r = 0.44, p < 0.001$). TCE also demonstrated moderate positive correlations with teacher commitment to school ($r =$

0.40, $p < 0.001$) and to teaching ($r = 0.37$, $p < 0.001$). Overall, these findings suggest that principals' instructional leadership practices and the collective efficacy among teachers play an important role in fostering teacher commitment, with most correlation coefficients falling within the moderate range. The current study findings are consistent with following prior findings.

First, consistent with the present results, prior studies have shown that instructional leadership positively influences collective teacher efficacy (Calik et al., 2012; Fancera & Bliss, 2011; Goddard et al., 2015; Hallinger et al., 2016; Hallinger & Lee, 2013; Cansoy et al., 2022).

Second, the present findings support the existence of a relationship between organizational commitment and teachers' collective efficacy (Calik et al., 2012; Ross & Gray, 2006b; Ware & Kitsantas, 2011). In particular, Cansoy et al. (2022) found a strong association between collective teacher efficacy and teacher commitment, suggesting that teachers with higher levels of both personal and collective efficacy tend to exhibit greater commitment to teaching (Coladarci, 1992).

Third, the current findings are consistent with the literature which further claims that the relationship between instructional leadership and teacher commitment is often mediated by collective teacher efficacy (Chung, 2019; Qadach et al., 2020). For instance, Al-Mahdy et al. (2018) demonstrated a significant indirect link between instructional leadership and teacher commitment through collective teacher efficacy.

Finally, the present findings align with recent findings by Hosseingholizadeh et al. (2020) reinforce this mediating role, providing further evidence that collective teacher efficacy significantly mediates the indirect relationship between instructional leadership and teacher commitment.

5.5 The Effects of IL on TC

The purpose of this study was to evaluate influences of sub-component IL on teacher commitment to teaching and to school through the utilization of hierarchical multiple regression analysis. There is a large impact that principal instructional leadership (IL) has on boosting teacher commitment, as demonstrated by the findings of the current research, which are consistent with those of past studies. To be more specific, the study's goal was to find out how school mission and school learning climate, two parts of instructional leadership, affect teachers' commitment to their teaching and schools.

When the school mission and positive learning atmosphere, which are parts of instructional leadership, were added to the second model, the amount of variation that could be explained increased. Specifically, the percentage of variance was explained and increased by 26.7% in teacher commitment to school and by 19.3% in teacher commitment to teaching. This big boost in explanatory power suggests that the school principal's leadership style, especially when it comes to setting clear goals and creating a supportive learning environment, has a bigger effect on teacher commitment than just the teachers' personal traits. This is especially true in the realms of setting a clear mission and learning climate. This finding is consistent with the findings of Hong and Matsko (2019), who highlight the fact that a combination of excellent leadership, high-quality mentoring, and chances for professional involvement can considerably increase the level of commitment. The final model, which included all predictors, revealed that both school mission and school learning climate were significant predictors of teacher commitment to school and to teaching. School mission was a particularly strong predictor, with standardized coefficients (β) of 0.304 and 0.277 for teacher commitment to school and to teaching, respectively.

In a similar vein, the present findings was noted that the positive linkages between school learning climate and both categories of teacher commitment were substantial ($\beta = 0.267$ for school commitment and $\beta = 0.207$ for teaching commitment). This was a significant finding. The results of the present finding was consistent with previous findings such as Skelton (2019) and Cansoy et al. (2020), the actions of principal instructional leaders, particularly those that are associated with the establishment of a school mission and the development of a positive learning environment, have a significant impact on the level of dedication that teachers have to their schools as well as the quality of instruction that they provide. Previous research indicated that principal IL behaviors have a considerable influence on teachers' organizational commitment and teaching quality. These findings were consistent with them, demonstrating that principal IL behaviors have a major influence.

The current findings were consistent with the following previous studies. First, Thien et al. (2024) conducted a study on Malaysian high schools, which highlighted the direct and positive effects of principal instructional leadership on teacher commitment to school, to teaching, and to students. The current findings also align with the findings conducted by Dou et al. (2017), who claimed that a principal's leadership in defining and expressing clear school goals and fostering a positive school culture can have a

substantial impact on teacher commitment, are in agreement with the idea that the importance of school mission and climate in shaping teacher commitment. Cansoy et al. (2020) reported the influence of instructional leadership on teacher collaboration, providing further support for the current findings. According to this research, the school mission and climate have a significant role in establishing a feeling of shared purpose and professional collaboration among teachers.

5.6 The Effects of IL on Teacher Collective Efficacy

The study specifically focused on the role of instructional leadership by defining a school mission and cultivating a school learning atmosphere. The purpose of the current study was to investigate the important predictors of teacher collective efficacy, with a particular emphasis on the role of instructional leadership. Two important parts of instructional leadership were found to be significant predictors of teacher collective efficacy. They explained 21.8% of the variation in this construct (adjusted $R^2 = 0.218$). The researcher determined this through the utilization of simultaneous multiple regression analysis. The establishment of a school mission ($\beta = 0.21, p < .0001$) and the school learning climate ($\beta = 0.31, p < .0001$) were found to be powerful and statistically significant determinants.

It is consistent with the findings of past research that has highlighted the role of instructional leadership in the process of developing the collective efficacy of instructors. This conclusion is consistent with other findings. The research that was carried out by Calik and colleagues (2012) offers additional evidence that there is a favorable association between instructional leadership and teacher collective efficacy. This current study was also consistent with the findings of Hosseingholizadeh et al. (2023), who claimed that the manner in which administrators lead, particularly when it comes to teaching, has a direct and significant impact on the level of dedication that instructors have.

In addition, the study by Cansoy and Parlar (2018) further strengthens the current study's findings by emphasizing that school principals' leadership behaviors positively and significantly impact collective teacher efficacy. This body of work highlights the vital role that instructional leadership plays in fostering an environment conducive to high teacher efficacy, underscoring its potential to facilitate better educational outcomes. Furthermore, the study by Qadach et al. (2020) supports the positive inter-correlations between instructional leadership and collective efficacy,

reinforcing the consistency of the relationship across diverse educational contexts.

In conclusion, the findings of this study contribute to the growing body of literature that underscores the significance of instructional leadership, particularly in the areas of school mission and positive learning climate, in enhancing teacher collective efficacy. The results suggest that school leaders should place a strong emphasis on these leadership dimensions to cultivate an environment where teachers feel capable, motivated, and supported in their collective efforts to improve educational outcomes.

5.7 The Effects of IL on TCE and TC

5.7.1 Direct Effects

The results of this study shed light on the significant direct effects that exist between teacher collective efficacy and teacher commitment ($\beta = 0.728, p < 0.001$). These findings suggest that the collective belief that teachers have in their talents is a crucial aspect in developing their teaching dedication. This present finding was consistent with Coladarci (1992) and Donohoo (2018) who highlighted the importance of collective efficacy as a significant driver of teacher engagement and organizational commitment. This result is in line with the findings of prior research, which also stresses the importance of collective efficacy. When teachers believe they can influence student outcomes, they are more likely to stay committed to their classroom duties.

Furthermore, it was discovered that instructional leadership exhibited a moderate but direct impact on the level of commitment displayed by teachers ($\beta = 0.365, p < 0.001$). According to this, it appears that instructional leadership, which encompasses activities such as goal settings and developing school learning climate plays a significant role in affecting the level of commitment displayed by teachers. This is consistent with the findings of Al-Mahdy et al. (2018), who also discovered that instructional leadership has strong direct effects on teacher commitment, albeit of a smaller magnitude ($\beta = 0.26, p < 0.01$). The current study provides further evidence that leadership plays a significant role in determining the organizational and teaching commitment that teachers have to their respective schools.

In addition, it was observed that instructional leadership had a significant direct impact on the collective efficacy of instructors ($\beta = 0.591, p < 0.001$). This finding lends support to the notion that successful leadership practices have the power to boost teachers' collective belief in their ability to achieve success. The findings of this study are consistent with those of previous research, such as the study conducted by Al-

Mahdy et al. (2018), which discovered that instructional leadership has a noteworthy influence on collective efficacy ($\beta = 0.60, p < 0.01$).

5.7.2 Mediated Effects

According to the current findings of an investigation into the mediation process, the collective efficacy of teachers is a crucial factor that plays a role in mediating the connection between instructional leadership and teacher dedication. As a means of providing further clarification, it is worth noting that the indirect effect ($\beta = 0.430, p < 0.001$) suggests that the concept of collective efficacy plays a role in influencing the impact of instructional leadership on teacher commitment. This impact is both direct and indirect. The findings of this study shed light on the significance of collective efficacy in the process of translating leadership tactics into actual teacher outcomes.

The results of this study's mediation are consistent with the findings of Qadach et al. (2020), who also identified collective efficacy as a mediator between instructional leadership and teacher commitment. Furthermore, the findings are consistent with Coladarci (1992) and Donohoo (2018) have established a comparable relationship between leadership and teacher commitment. This is because leadership increases the collective opinion that instructors have regarding their own efficacy.

Ultimately, the current findings were supported by Thien et al. (2024) who found the collective efficacy mediated the association between instructional leadership and the forms of teacher commitment, including teacher commitment to school and to teaching. Furthermore, the current findings of this study are in agreement with those of Cansoy (2022), who had found that collective efficacy partially buffered the relationship between instructional leadership and organizational commitment while at the same time allowing for a direct effect of leadership.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This research concludes by summarizing the key findings and discussing their theoretical, practical, and potential future implications. Additionally, the chapter highlights and prioritizes recommendations for future research and practice, offering guidance for further exploration in these areas.

6.1 Conclusions

By highlighting the significance of school missions and a pleasant learning atmosphere as the primary components of instructional leadership in Cambodia's secondary resource schools, this study demonstrates the value of these two aspects. It was found that the management of instructional programs (MIP) part of the original model of instructional leadership did not work in Cambodia. This is because Cambodia has a centralized curriculum management system, which means that decisions are made by the Ministry of Education Youth and Sport rather than by individual schools. Although some sub-components of MIP such as supervising and evaluating instruction, and monitoring student progress align with components of Cambodian school principals' roles and duties defined by ministry of education, youth and sport (MoEYS, 2016) may not be fully implemented at school level.

As a consequence of this, the research suggests that attention be directed toward the two aspects—the school's mission and the good learning climate—which are more relevant and possess the potential to be directly altered by school administrators. One of the most important factors that drive teacher commitment is having a school mission that is both clear and compelling, as well as those that are connected with educational goals and community values. In addition, the development of a constructive learning environment that encourages teachers to work together, their professional development, and respect for one another is beneficial to the development of collective efficacy and the maintenance of teacher commitment.

The conceptual framework is easier to understand and more accurately reflects the realities of education in Cambodia since the MIP dimension was taken out of the study. By taking this strategy, school leaders are able to concentrate on areas that they have the ability to effectively affect, which ultimately results in increased teacher dedication and collective efficacy. Based on the data, it appears that enhancing

leadership in these two crucial areas will result in improved instructional leadership and a more robust commitment from teachers throughout all Cambodian secondary resource schools.

According to the findings of the study, the data in the Cambodian context did not correspond well with the concept of teacher commitment to students (TCS), which is a distinct element of teacher commitment. Several of the items that were initially intended to measure this construct had factor loadings that were either low or confusing. This was particularly the case because of cross-loadings or weak representations of the factor (commitment to students).

In the context of secondary resource schools in Cambodia, the main purpose of this study was to investigate the relationship between instructional leadership (IL) and teacher commitment, with a particular emphasis on the role that teacher collective efficacy (TCE) plays as a mediator. The objective of this study was to determine the mechanism by which instructional leadership contributes to the collective efficacy of teachers and, ultimately, to their commitment. In addition to this, the study intended to investigate the degree of dedication displayed by educators and the manner in which they evaluate the leadership abilities of their school directors. The 619 teachers who participated in the survey represented a comprehensive sample of secondary resource schools. These educators were located in three distinct zones: Tonle Sap, Central Plain, and Coastal and Sea.

6.1.1 Exploratory Factor Analysis (EFA)

The findings from the Exploratory Factor Analysis (EFA) indicate that the construct of Managing Instructional Programs (MIP) does not align well with the Cambodian educational context. This is largely due to issues such as low factor loadings on several items, cross-loadings, and a lack of clear representation in the model. These results suggest that the concept of MIP, as originally conceptualized, may not be entirely applicable in Cambodia, where central authorities typically dictate curriculum decisions, and school leaders may not have direct control over instructional management.

However, should policymakers wish to retain Managing Instructional Leadership (MIL) as a key construct in Cambodian schools, it is essential to provide targeted training for school directors to enhance their instructional leadership skills. This training should include practical strategies such as regular classroom visits and greater autonomy over curriculum management, empowering schools to take charge of

their own educational programs. Decentralizing curriculum decisions from the central authorities to the schools could facilitate a stronger alignment between the roles of school leaders and instructional management, making the Managing Instructional Program (MIP) construct more relevant and effective within the Cambodian context. By taking these steps, MIP could be revitalized as a meaningful and actionable framework in the country's education system.

The findings of this study indicate that the items from Teacher Commitment to Students factor in the Cambodian context load more strongly on Teacher Commitment to Teaching. This suggests that the commitment to students may not be a completely separate construct, but rather an integral component of a teacher's overall commitment to teaching. Therefore, it is appropriate to conclude that items related to the teacher's responsibility to students, such as helping students succeed and improving their knowledge, should be incorporated into the Teacher Commitment to Teaching dimension.

The researcher conducted an exploratory factor analysis (EFA) to validate the underlying structure of the data. The results confirmed the presence of five distinct factors: creating a school mission, developing a positive school learning climate, teacher commitment to school, teacher commitment to teaching, and teacher collective efficacy. The data supported a five-factor model that accounted for 60.28% of the total variance, with all items loading above 0.5 based on their respective factors. The Cronbach's alpha values for each factor were above 0.70, indicating high internal consistency and reliability for the constructs. This finding provides robust evidence for the construct validity and reliability of the measures used in this study (See 4.18).

6.1.2 Confirmatory Factor Analysis (CFA) Results

The researcher investigated the normal distribution of the data using skewness and kurtosis prior to conducting confirmatory factor analysis (CFA). The values for skewness ranged from -0.85 to -0.22, while the values for kurtosis ranged from -0.61 to 1.54, showing that the data distribution was normal (Hair et al., 2019). The CFA findings established the assessment model's appropriate construct validity and psychometric validity. It was found that the construct reliabilities ranged from 0.85 to 0.92, whereas the standardized factor loadings were found to be anywhere between 0.58 and 0.86. These numbers for the Average Variance Extracted (AVE) ranged from 0.53 to 0.62, which shows that the convergent validity was good (Hair et al., 2019). According to Fornell and Larcker (1981), the square roots of the AVEs varied from 0.73

to 0.79, and each square root of the AVE for each variable was bigger than the correlation between that variable and other variables. This indicates that the discriminant validity of the AVEs is satisfactory. Although the measurement model only had five constructs, it fit well enough as shown by the statistical values: $\chi^2(485) = 923.78$, $p < 0.001$, CFI = 0.94, TLI = 0.94, SRMR = 0.040, and RMSEA = 0.046 (90% confidence interval). These findings provide credence to the use of the measuring model in the Cambodian secondary resource school context and bring to light the resilience of the constructs that were investigated in this study.

6.1.3 Teachers' Perceptions of IL, TCO and TCT

The study found that designing a school mission and creating a learning environment were two important parts of instructional leadership that were significantly and positively linked to teachers' commitment to their school and teaching. To be more specific, instructors who believed that their leaders were successful in establishing clear goals and cultivating a pleasant learning environment were more dedicated to their school and to teaching. This was the case regardless of whether or not the leaders were successful. As a result of these findings, it is abundantly obvious that leadership plays a vital part in the process of developing an environment that supports the professional development of educators as well as their involvement with students. The strong correlation between school mission and commitment to school ($r = 0.55$), commitment to teaching ($r = 0.48$), and also between school learning climate and components of teacher commitment show that the way instructional leaders run their schools, especially how they help create a clear school mission and a positive school learning environment, has a direct and significant effect on how committed teachers are to their teachings (see table 4.15).

6.1.4 Regional Differences in Teachers' Perceptions of IL, TC and TCE

According to the findings of this study, there were significant regional differences in the ways in which teachers perceived instructional leadership and teacher commitment. Using One-way Analysis of variance (ANOVA) and post hoc analysis, the data revealed that teachers' views on the process of creating school missions are very different depending on where they work. The capacity of principals to develop a school mission was ranked substantially higher by teachers in the Coastal and Sea regions than it was by teachers in the Central Plain region. On the other hand, when compared to teachers in either the Central Plain or the Coastal and Sea regions, those in the Tonle Sap region did not significantly differ in their assessments of the school mission.

The findings also indicate considerable regional differences in teachers' commitment to both their school and to teaching. The examination of teacher commitment to the school showed that teachers in the Coastal and Sea regions demonstrated significantly higher levels of commitment than their counterparts in the Tonle Sap and Central Plain regions. In particular, the Coastal and Sea region demonstrated a markedly greater commitment to the school, while no significant differences were observed among teachers in the Tonle Sap and Central Plain regions. There were also notable regional variations in teacher commitment to teaching. In comparison to teachers in the Central Plain region, those in the Coastal and Sea regions indicate higher commitment to teaching. However, teaching commitment did not differ significantly between the Tonle Sap and Coastal and Sea regions, nor between the Tonle Sap and Central Plain regions.

These findings imply that regional factors could significantly influence teacher commitment, with the coastal and sea regions exhibiting higher levels of both school and teaching commitment. Based on this conclusion, it appears that regional characteristics, which may be related to socio-economic and cultural variations, may impact how teachers perceive the role of principals in determining the mission of the school and teacher commitment. Despite these variances, the teachers' judgments of the school's learning climate, (IL sub-component) and teacher collective efficacy showed no significant regional variation. This suggests that instructors, regardless of where they are located geographically, have a similar perception of the overall climate at the school (see Table 4.12).

6.1.5 The Relationships between TCE, IL and TC

It was shown that there was a substantial correlation between teacher collective efficacy and teacher' evaluations of school missions ($r = 0.48$) and school learning climates ($r = 0.51$). There is a substantial association between the quality of leadership, the environment in which teachers work, and their belief in their collective potential to positively impact student outcomes. The setting in which they work strongly influences this belief. It was also found that there was a positive correlation between collective efficacy and teacher commitment (commitment to school $r = 0.45$, commitment to teaching $r = 0.42$). This suggests that when teachers have faith in their collective capacity to bring about change, they are more committed to both school and teaching (see table 4.22).

6.1.6 Predictors of Teacher Commitment and Collective Efficacy

For the study of what makes teachers committed, hierarchical multiple regression analysis showed that creating mission of the school and the positive learning environment were strong predictors of both commitment to teaching and commitment to the school. In particular, it is worth noting that teacher commitment to teaching was significantly predicted by the school mission ($\beta = 0.277, p < 0.001$) and the school learning climate ($\beta = 0.207, p < 0.001$). Both of them were found to be important prediction factors. These factors explained 20.6% of teaching commitment variations (see Table 4.15). For the teacher commitment to school, the predictors accounted for 28.3% of the variation. Among the predictors, school mission ($\beta = 0.304, p < 0.001$) and school learning climate ($\beta = 0.267, p < 0.001$) demonstrated significant effects on commitment to school (see Table 4.16). Additionally, using simultaneous multiple regression to look at teacher collective efficacy showed that school mission ($\beta = 0.21, p < 0.001$) and school learning climate ($\beta = 0.31, p < 0.001$) were strong predictors of collective efficacy, explaining 21.8% of the variance in this construct (see Table 4.17). These results show how important good instructional leadership is for building a strong sense of collective efficacy among teachers, which in turn makes each teacher more committed.

6.1.7 Structural Equation Modeling (SEM)

The structural equation modeling analysis confirms that instructional leadership (IL) significantly affects teacher commitment through both direct and indirect pathways, while instructional leadership has a direct positive effect on teacher commitment, a significant portion of its influence occurs indirectly through its positive effect on teacher collective efficacy. The results underscore the importance of the instructional leadership in fostering teacher commitment, with collective efficacy serving as a key mediator in this relationship. These findings suggest that interventions aimed at enhancing instructional leadership could potentially enhance teacher commitment not only through direct actions but also by strengthening teacher collective efficacy, thereby improving overall teacher effectiveness and engagement in the organization.

The SEM results highlight the critical role of teacher collective efficacy in mediating the relationship between school mission, positive learning climate and teacher commitment to organization and teacher commitment to teaching. While school mission and school learning climate exhibits minimal or negative effect, they significantly enhances teacher commitment, both directly and indirectly through teacher

collective efficacy. These findings emphasize the importance of fostering a positive learning climate and building group competencies to strengthen teacher commitment in schools.

Final conclusion of the present research findings- Table 4.25 shows that teacher collective efficacy has strong positive direct effect on teacher commitment ($\beta = 0.728, p < 0.001$), indicating that higher level of teacher collective efficacy are directly related to greater teacher commitment. Instructional leadership has a moderate positive direct effect on teacher commitment ($\beta = 0.365, p < 0.001$), suggesting that higher level of instructional leadership lead to higher levels of teacher commitment. Instructional leadership also has strong positive direct effect on teacher collective efficacy ($\beta = 0.591, p < 0.001$), indicating that stronger instructional leadership improve teacher collective efficacy.

6.2 Implications and Benefits of the Research Findings for School Principals

Based on the correlational findings, this study concludes that the more consistently school principals practice instructional leadership, the greater the levels of teacher commitment and collective efficacy. In turn, higher levels of teacher commitment and collective efficacy are likely to contribute to improvements in student learning achievement. This suggests that when school principals intentionally and effectively implement the components of instructional leadership, teacher motivation and commitment are enhanced.

This conclusion is grounded in two key theoretical frameworks presented in the conceptual framework: Social Cognitive Theory (Bandura, 1986) and Path-Goal Theory (House, 1996). Social Cognitive Theory emphasizes those individuals' actions, values, and behaviors are shaped by observing others and by the environmental conditions—both of which are significantly influenced by school leadership. Path-Goal Theory highlights the relationship between a leader's behavior and the motivation, satisfaction, and performance of subordinates—in this case, the relationship between school principals' leadership practices and teachers' daily work.

First, to promote teacher commitment, school principals must begin by implementing the first core component of instructional leadership: defining the school mission. This involves clearly formulating school goals in collaboration with key stakeholders, including teachers, school governing bodies, and community leaders. These goals should align with the broader school vision and national education policies,

reflect students' academic needs and ethical development, and meet national standards. Furthermore, these goals must be effectively communicated to all stakeholders—teachers, parents, students, community members, local authorities—so that everyone understands and works collectively toward achieving them. Specific indicators related to framing school goals and communicating school goals of IL should be incorporated into school monitoring and evaluation mechanisms.

Second, school principals should implement the next component of instructional leadership: managing the instructional program. This involves three key sub-components: supervising and evaluating classroom instruction, coordinating the curriculum, and monitoring both academic and behavioral progress of students. Effective implementation of these practices supports teacher development and strengthens instructional quality, ultimately enhancing commitment to the teaching profession. However, managing instructional program (MIP) was excluded from instructional leadership in the present findings. Therefore, school principals should employ all items of (MIP) as indicators to be monitored and evaluated in school.

Third, principals should focus on the final component of instructional leadership: promoting a positive school learning climate. To do this, principals must protect instructional time, maintain high visibility within the school, provide appropriate incentives for both teachers and students, and support ongoing professional development. These practices create an environment in which teachers feel supported, valued, and motivated to remain committed to their profession and the success of their students. Therefore, school principals or head teachers should employ all items of developing positive school learning climate in weekly duties.

In conclusion, schools should adopt Instructional Leadership (IL) as a central framework for guiding their strategic direction and day-to-day operations. This begins with the development of clear, measurable goals that are aligned with the school's broader vision and the national education policy. These goals should not only reflect the academic and developmental needs of students but also embody the values, standards, and long-term aspirations of the school community.

6.3 Implications of the Research Findings for Educational Stakeholders

Based on the correlational findings of this study, it is evident that constant implementation of instructional leadership practices by school principals significantly enhances teacher commitment and collective efficacy. These, in turn, contribute to

improved student learning outcomes. Grounded in Social Cognitive Theory (Bandura, 1986) and Path-Goal Theory (House, 1996), the findings suggest that leadership behavior plays a pivotal role in shaping the school environment and influencing teacher commitment to school and teacher commitment to teaching. In light of these findings, several implications emerge for key educational stakeholders:

Policy makers at the national levels should prioritize instructional leadership as a core competency in education policies and leadership standards. This could include: (1) integrating instructional leadership frameworks into national education reform agendas; (2) establishing clear policies and guidelines that define the expectations for school leaders regarding setting school missions, managing instructional programs, and cultivating a positive school climate; (3) allocating funding and resources to support leadership development initiatives and ongoing professional learning for principals. As discussed in chapter 5, few elements of key components in Cambodian school principals' roles and duties are consistent with certain sub-components of instructional leadership. However, managing instructional program, one of IL component was notably removed. Therefore the policy makers should consider employing full range of IL components as indicators of effective school management and leadership in national policy.

Training institutes and universities responsible for pre-service and in-service leadership development should: (1) incorporate instructional leadership models into training curricula for both aspiring and current school directors; (2) emphasize the practical application of leadership theories such as Social Cognitive Theory and Path-Goal Theory to help leaders understand how their behaviors influence teacher efficacy and commitment; (3) design training modules that strengthen principals' skills in setting school goals, managing instruction, and fostering a collaborative learning climate; (4) ultimately, it is important that leadership trainers themselves be equipped with instructional leadership skills and they are capable of exercising them effectively within their own schools.

Provincial education offices or education inspectors should also receive in-service leadership training with appropriated period of time to ensure they are well-equipped with leadership skills. Therefore, they are able to play a vital role in supporting school leadership development at the regional level. They should (1) monitor and evaluate school principals' performance specifically related to instructional leadership practices; (2) facilitate the dissemination of best practices across schools

through leadership workshops, cluster meetings, and provincial training programs; (3) encourage schools to adopt evidence-based school improvement plans that align with the core principles of instructional leadership; (4) finally provincial education officers or inspectors require school directors to submit monthly reports detailing their instructional leadership practices to Provincial Educational Office and other relevant institutions. These should be accountable and transparent. Importantly, whether the level of instructional leadership reported is low or high, it should not be treated as administrative fault; what is important is the integrity and honesty of the reporting process. The impact of IL practices finally contributes to improved student academic achievement.

The district education officers should also receive in-service leadership training with appropriated period of time to ensure they are well-equipped with leadership skills. Therefore education offices should focus on implementation and oversight. Therefore they are able to (1) conduct regular assessments of how school principals define and communicate school missions, manage instruction, and build learning climates; (2) provide targeted support to schools where leadership practices need strengthening, such as mentoring, coaching, or peer learning networks (3) ensure that instructional leadership indicators are integrated into district-level monitoring and school evaluation systems.

In conclusion, all educational stakeholders including policy makers, training institutions, universities, provincial and district education offices, as well as schools should be well-equipped with strong instructional leadership skills and demonstrate the capacity to practice them effectively within school systems to enhance sustainable improvement in teaching and learning processes.

6.4 Recommendations

6.4.1 Recommendations for Future Actions

The results show how important instructional leadership is because it not only affects teachers' commitment directly, but it also increases their collective efficacy, which in turn increases their commitment. This is because the findings highlight the importance of both of these factors. In order to improve overall teacher commitment and collective efficacy, educational leaders should prioritize leadership behaviors that foster teacher collaboration, professional development, and a supportive climate. These elements are among the factors that contribute to increased overall teacher commitment.

In addition, the fact that collective efficacy plays a mediating role suggests that instructional leaders should concentrate on enhancing teachers' trust in their collective capabilities to impact the results of their students. When leaders take this action, they have the ability to dramatically increase teacher dedication, which is essential for enhancing school performance and the success of students, respectively.

6.4.1.1 Enhancing Instructional Leadership Practices

In order to enhance the IL practice, we should pay attention to the School Mission and Learning Climate: The findings of the research showed that a school mission that is not only understandable but also inspiring, as well as a positive learning climate is significant variables that contribute to the dedication of instructors. Therefore, administrators must prioritize formulating a compelling school mission that aligns with both educational objectives and the values of the community. Furthermore, building a constructive learning environment that stimulates collaboration, creativity, and professional development is a means by which it is possible to meet the goal of increasing teacher involvement and long-term commitment to the school and to teaching.

Leadership Training on a regular basis: In view of the fact that instructional leadership has a significant impact on the outcomes for teachers, it is absolutely necessary for school leaders to get continual professional development in their knowledge of the methods of instructional leadership. Training should include strategies for effective communication, the formulation of specific educational goals, and the creation of an environment that is favorable to learning. Including these elements is essential. Principals will have access to the necessary materials to effectively guide and inspire their individual instructors.

Finally, the excluded "managing instructional program" (sub-component) from original instructional leadership model based on the current results should be reconsidered in national policy and school-level practices because if school principals regularly adopt this sub-component, it may lead to increase teacher commitment and enhance teacher collective efficacy.

6.4.1.2 Strengthen Teacher Collective Efficacy

The concept of teacher collective efficacy, which refers to the belief that teachers have the potential to positively influence the results of their students, is a vital mediator of teacher commitment. Because of this, it is important to encourage collaborative teaching practices. School officials should encourage the implementation

of tactics like team teaching, peer mentoring, and shared decision-making methodologies to foster collaboration among educators. The introduction of collaborative professional development programs and regular team meetings can strengthen collective effectiveness. These programs encourage instructors to work together toward the attainment of common goals, which further strengthens collective efficacy.

Educational leaders should provide teachers with the opportunity to take on leadership responsibilities. Providing teachers with the opportunity to take on leadership responsibilities within the school, such as guiding the development of the curriculum or participating in student support programs, can increase the overall effectiveness of the school or institution. When they have the perception that they have a role in shaping the policies and procedures of the school, teachers have a stronger belief in their collective power to drive student success. This is because they believe that they have the ability to influence outcomes.

6.4.1.3 Address Regional Differences

The study discovered considerable geographical disparities in how teachers regarded the school mission and the efficacy of leadership. These differences should be taken into consideration when tailoring leadership approaches to regional contexts. As a consequence of this, instructional leadership training and tactics has to be modified so as to accommodate the specific difficulties and cultural aspects that are present in various places. In regions where it is believed that principals have a lower capacity to build a school mission, there should be a greater emphasis placed on providing more specialized support and training in order to cultivate this ability.

Ministry of Education, youth and sports should hold workshops or seminars that are specifically designed to meet the requirements of educators in various places. During these seminars, the primary focus should be on developing a common knowledge of the process of creating a school mission and developing a learning climate, while also taking into consideration the socio-economic and cultural backdrop of each region.

6.4.1.4 Support TC through Professional Development

First, Ministry of Education Youth and Sport should establish programs that offer ongoing professional development opportunities for educators throughout their careers. A key element influencing a teacher's passion for their profession is how much they perceive progress and in their skills and effectiveness. It is imperative that schools

provide teachers with chances for continuous professional development in order to ensure the success of their careers. In addition to focusing on the development of material comprehension, these programs should also place an emphasis on the improvement of teaching strategies, experience in classroom management, and various leadership capacities.

In order to guarantee that professional development will result in increased levels of teacher commitment, it is important to provide incentives to educators who participated in professional development programs and actively participate in those programs. It is the responsibility of school administrators to offer incentives to educators who choose to actively participate in professional development experiences. The following are some examples of incentives that could be provided to teachers: opportunity for career advancement, recognition, or increasing responsibility. Perhaps it would be helpful to do a study that looks at these outside factors in order to get a more complete picture of how they affect instructional leadership and teacher commitment. Because of this, there is a possibility that the usefulness of MIP or Commitment to Students will be reevaluated in a number of different situations.

6.4.1.5 Foster a Positive School Learning Climate

First we should create the supportive work environment. A healthy learning climate is critical for both the well-being of teachers and the success of students. It is important to create work environments that are supportive. Educational institutions should prioritize creating an atmosphere that recognizes supports, as well as values educators. The promotion of open communication, the provision of emotional and professional support, and the provision of resources that enable teachers to attain success in their professions are all ways in which this can be accomplished.

Second, we should advocate the autonomy of teachers. Giving teachers the authority to make decisions regarding the implementation of instructional strategies and classroom management is crucial. This feeling of control can lead to an increase in job satisfaction and collective efficacy among teachers, which in turn leads to a rise in their commitment to the school and the teaching profession.

6.4.1.6 Focus on Strengthening Teacher-Principal Relationships

Enhancing communication between principals and teachers is necessary. It is essential for there to be open and continuous communication between principals and teachers in order to cultivate trust and dedication. The administration of the school ought to make consistent efforts to interact with the teaching staff, pay attention to their

problems, and offer constructive criticism. Regular one-on-one sessions and informal conversations can help build stronger relationships with teachers and boost their morale. Involve teachers in decision-making. Principals should make sure that teachers are included in the decision-making processes, particularly when it comes to matters concerning changes to the curriculum, instructional techniques, and school rules. When teachers actively participate in school planning, their dedication to the school and teaching may increase.

6.4.1.7 Improving TCS and MIP

Teacher commitment to students should be prioritized and enhanced through targeted in-service and pre-service training programs. These programs should focus on fostering a stronger emotional and professional connection between teachers and students, emphasizing the importance of teacher-student relationships in improving student outcomes.

To improve managing instructional leadership, it is recommended that power be decentralized to school directors, enabling them to take a more active role in developing and tailoring the school curriculum to meet the specific needs of their students. Additionally, school directors should receive specialized training in curriculum development and management to equip them with the necessary skills to design and implement effective instructional programs that align with students' needs, school vision, mission, and goals.

6.4.2 Recommendations for Further Studies

Future research should address the limitations of this study, which offers valuable insights into the relationship between instructional leadership, teacher collective efficacy, and teacher commitment. The following recommendations are provided to enhance future studies:

First, this study employed a cross-sectional design, which limits the ability to draw definitive conclusions about the causal comparative between the regions. Future studies could adopt a longitudinal design to explore how the teachers' perceptions evolve over time. A longitudinal approach would provide valuable insights into how instructional leadership, teacher collective efficacy, and teacher commitment change in response to different leadership styles and interventions over an extended period.

Second, future research could examine the impact of additional contextual elements, such as socio-economic status, community involvement, and access to resources, on the effectiveness of instructional leadership and teacher commitment.

These factors may significantly influence how teachers perceive leadership and their level of engagement with their work. Investigating these contextual elements would provide a more comprehensive understanding of the dynamics at play.

Third, to increase the generalizability of the findings, future research should expand the sample to include teachers from resource-poor schools or schools in different regions of Cambodia. By including a more diverse range of educational settings, researchers could compare how instructional leadership influences teacher commitment and collective efficacy across various contexts, thus enhancing the applicability of the findings to broader educational systems.

Fourth, although this study used a cross-sectional design, it is strongly recommended that future research adopt longitudinal methods to better understand the long-term effects of instructional leadership on teacher collective efficacy and teacher commitment. Longitudinal studies can provide critical information on how leadership styles impact teacher behavior and effectiveness over time, helping to inform strategies that foster long-term teacher engagement and performance.

Fifth, further studies should explore how external factors, such as socio-economic status, community involvement, and access to resources, influence instructional leadership effectiveness and teacher commitment. These external factors can significantly shape how teachers view their leadership and role within the school, impacting their overall engagement and effectiveness.

Sixth, future research should consider including variables that were excluded in this study, such as managing instructional programs (MIP) and teacher commitment to students. Including these variables in the correlational model would allow for a deeper exploration of how instructional leadership impacts teacher commitment, with teacher collective efficacy potentially serving as a mediator.

Finally, future research should use a mixed-methods approach, combining qualitative and quantitative data, to gain a deeper understanding of teacher commitment in Cambodia. This approach would capture both statistical trends and the contextual factors that qualitative research can reveal, providing a more comprehensive view of the factors influencing teacher commitment and offering actionable insights for improving educational outcomes.

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APPENDICES

Appendix A. Experts for Checking Questionnaire Validity

បញ្ជីឈ្មោះអ្នកជំនាញត្រួតពិនិត្យកម្រងសំណួរ

ល.រ	គោត្តនាម-នាម	តំណែង
១	ឯកឧត្តមបណ្ឌិត លីម សុផា (H.E. Sothea Lim, PhD)	អគ្គនាយកគោលនយោបាយនិងផែនការ ក្រសួងអប់រំ យុវជននិងកីឡា
២	ឯកឧត្តមបណ្ឌិត អុន ស៊ីវុធ (H.E. Sivutha On, PhD)	អនុរដ្ឋលេខាធិការ ក្រសួងមុខងារសាធារណៈ
៣	បណ្ឌិត បន សាបាណ (Saban Bon, PhD)	មន្ត្រីនាយកដ្ឋានធនធានមនុស្ស ក្រសួងអប់រំយុវជននិងកីឡា

Appendix B. Request to University for Data Collection Approval

**សូមគោរពជូន
លោកជំទាវ ឃឹម រ៉ានី
សាកលវិទ្យាធិការស្តីពី នៃសាកលវិទ្យាល័យកម្ពុជា**

កម្មវត្ថុ: សំណើសុំចុះប្រមូលទិន្នន័យសម្រាប់សរសេរបញ្ចប់និក្ខេបបទថ្នាក់បណ្ឌិតជាមួយគ្រូបង្រៀនតាមបណ្តា
វិទ្យាល័យ គោលដៅនៅកម្ពុជាចាប់ពីថ្ងៃទី១៦ ខែកញ្ញាដល់ ថ្ងៃទី១៨ ខែតុលាឆ្នាំ ២០២៤។

សេចក្តីដូចមានចែងក្នុងកម្មវត្ថុខាងលើខ្ញុំបានមានកិត្តិយសសូមជម្រាបលោកជំទាវ មេត្តាជ្រាបថា ខ្ញុំបានឈ្មោះ
ខាន់ សំគាន់ ជាបេក្ខជនបណ្ឌិត ជំនាញវិទ្យាសាស្ត្រអប់រំនៃមហាវិទ្យាល័យអប់រំ សាកលវិទ្យាល័យកម្ពុជាបានបំពេញគ្រប់
លក្ខខណ្ឌតាមគោលការណ៍របស់សាកលវិទ្យាល័យនិងគ្រោងចុះប្រមូលទិន្នន័យដើម្បីសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត
លើប្រធានបទស្តីពី "ផលជះការជាអ្នកដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើការជឿជាក់និងការប្តេជ្ញាចិត្តរបស់គ្រូ
បង្រៀនសាលាមធ្យមសិក្សាធនធាននៅកម្ពុជា" (The Impact of School Directors' Instructional Leadership on
Teachers' Collective Efficacy and Commitment at the Secondary Resource Schools in Cambodia) ដោយ
ផ្ដោតទៅវិទ្យាល័យរដ្ឋចំនួន ១២ ក្នុងខេត្តគោលដៅចំនួន៦គឺ៖ ខេត្តព្រះសីហនុ កំពត តាកែវ កំពង់ធំ កំពង់ឆ្នាំងនិងរាជ
ធានីភ្នំពេញ ដូចមានក្នុងបញ្ជីជូនភ្ជាប់។ ការសិក្សានេះមានគោលបំណងដើម្បីសិក្សាស៊ីជម្រៅលើ ផលជះការជាអ្នក
ដឹកនាំបែបបង្កាត់បង្រៀនរបស់នាយកសាលាលើការជឿជាក់និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀននៅកម្ពុជា។

ការសិក្សានេះប្រើប្រាស់កម្រងសំណួរជាមួយសំណាកគោលដៅដែលនិងគ្រោងចុះប្រមូលទិន្នន័យចាប់ពីថ្ងៃទី១៦
ខែកញ្ញា ដល់ ថ្ងៃទី ១៨ តុលាឆ្នាំ២០២៤ តាមពេលវេលានិងទីកន្លែងសមរម្យដោយមិនបង្ខំផលប៉ះពាល់ដល់ការបង្រៀន
និងរៀនឡើយ។

សេចក្តីដូចបានជម្រាបជូនខាងលើ សូម លោកជំទាវ មេត្តាពិនិត្យ និងសម្រេចដោយក្តីអនុគ្រោះ។
សូម លោកជំទាវ មេត្តាទទួលនូវការគោរពដ៏ខ្ពង់ខ្ពស់អំពីខ្ញុំបាទ ។

ថ្ងៃច័ន្ទ១៤រោច ខែស្រាពណ៍ ឆ្នាំរោង ឆស័ក ព.ស. ២៥៦៨
រាជធានីភ្នំពេញ ថ្ងៃទី០២ ខែកញ្ញា ឆ្នាំ២០២៤
ហត្ថលេខានិងឈ្មោះ



បេក្ខជនបណ្ឌិតខាន់ សំគាន់

បានឃើញ និងឯកភាព
សូមគោរពជូនលោកជំទាវសាកលវិទ្យាធិការស្តីពី ពិនិត្យសម្រេច។
សាស្ត្រាចារ្យជីកនាំគោល



បណ្ឌិត ម៉ុក សារ៉ែម

បញ្ជីរាយឈ្មោះវិទ្យាល័យគោលដៅ

ល.រ	ឈ្មោះវិទ្យាល័យ	ទីតាំង	ខេត្ត
១	វិទ្យាល័យ ហ៊ុនសែនបណ្ឌិត	សង្កាត់ជីវិតាន់ខ្លា ក្រុងស្ទឹងសែន	ខេត្តកំពង់ធំ
២	វិទ្យាល័យកំពង់ធំ	សង្កាត់ អាចារ្យលាក់ក្រុងស្ទឹងសែន	
៣	វិទ្យាល័យ ហ៊ុនសែន បរិបូណ៌	ឃុំខ្ពស់រែង ស្រុកបរិបូណ៌	ខេត្តកំពង់ឆ្នាំង
៤	វិទ្យាល័យ ព្រះបាទសុរាម្រិត	សង្កាត់កំពង់ឆ្នាំង ក្រុងកំពង់ឆ្នាំង	
៥	វិទ្យាល័យជាស៊ីមតាកែវ	សង្កាត់ការក្នុង ក្រុងដូនកែវ	ខេត្តតាកែវ
៦	វិទ្យាល័យសម្តេចឪ	ឃុំសំរោង ស្រុក សំរោង	
៧	វិទ្យាល័យ ចំណេះទូទៅនិងបច្ចេកទេសព្រះរាជសម្ភារ	សង្កាត់អណ្តូងខ្មែរ ក្រុងកំពត	ខេត្តកំពត
៨	វិទ្យាល័យ ហ៊ុន សែន ឈូក	ឃុំសត្វពង ស្រុកឈូក	
៩	វិទ្យាល័យចំណេះទូទៅនិងបច្ចេកទេសក្រុងព្រះសីហនុ	សង្កាត់លេខ៣ ក្រុង ព្រះសីហនុ	ខេត្តព្រះសីហនុ
១០	វិទ្យាល័យ ហ៊ុន សែន វាលវេញ	ឃុំ វាលវេញ ស្រុកព្រៃនប់	
១១	វិទ្យាល័យសម្តេច ហ៊ុន សែន ប៊ុនរ៉ានីច្បារអំពៅ	សង្កាត់និរោធ ខណ្ឌច្បារអំពៅ	រាជធានីភ្នំពេញ
១២	វិទ្យាល័យចំណេះទូទៅនិងបច្ចេកទេស ហ៊ុនសែន ជម្ពូរិន	សង្កាត់ចោមចៅខណ្ឌ ពោធិ៍សែនជ័យ	

ថ្ងៃច័ន្ទ១៤រោច ខែស្រាពណ៍ ឆ្នាំរោង ឆស័ក ព.ស. ២៥៦៨

រាជធានីភ្នំពេញ ថ្ងៃទី០២ ខែកញ្ញា ឆ្នាំ២០២៤

រៀបចំដោយ



ខាន់ សំកាស់

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យកម្ពុជា
THE UNIVERSITY OF CAMBODIA

លេខ: ៣០៦/២៤ សក/ បឋម

មហាវិទ្យាល័យ/សាលា

- មហាវិទ្យាល័យសិរីរដ្ឋ:
- វិទ្យាសាស្ត្រសាស្ត្រ
- មហាវិទ្យាល័យអាយុធ្យ
- មហាវិទ្យាល័យបូជបុរ
- មហាវិទ្យាល័យជំរឿន
- មហាវិទ្យាល័យ
- វិទ្យាសាស្ត្រសង្គម
- មហាវិទ្យាល័យវិទ្យាសាស្ត្រ និងបច្ចេកវិទ្យា
- សាលាភាសាខេមរភាសា
- សាលាសិល្បៈវិទ្យាសាស្ត្រ
- សាលានៅស្រែក
- កីឡាករ ថ្នាក់បរិញ្ញាបត្រ និង ទំនាក់ទំនងអន្តរជាតិ
- សាលាភាសាបារាំង
- គូប៊ីស៊ីស្ទ
- សាលាសម្រាប់ការបណ្តុះបណ្តាលកម្មវិធីសិក្សាបច្ចេកទេស
- សាលាសម្រាប់ការបណ្តុះបណ្តាលកម្មវិធីសិក្សាប្រើប្រាស់បច្ចេកវិទ្យា

សូមគោរពជូន
ឯកឧត្តមបណ្ឌិតសភាចារ្យ ហង់ ជួន ណារិន
នាយករដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា
ជាតិគោរពជំនុំជំរុញ!

កម្មវត្ថុ:

គោលបំណង:

សំណើសុំការអនុញ្ញាតឱ្យ លោក ខាន់ សំកាស់ បេក្ខជនបណ្ឌិតនៅមហាវិទ្យាល័យអប់រំ នៃសាកលវិទ្យាល័យកម្ពុជា ចុះប្រមូលទិន្នន័យស្រាវជ្រាវ នៅតាមបណ្ណាវិទ្យាល័យរដ្ឋ ចំនួន ១២ នៅក្នុងខេត្តកំពង់ធំ កំពង់ឆ្នាំង តាកែវ កំពត ព្រះសីហនុ និងរាជធានីភ្នំពេញ ដើម្បីបាន ទិន្នន័យសរសេរនិក្ខេបបទបញ្ចប់ការសិក្សាថ្នាក់បណ្ឌិត។

សំណើរបស់លោក ខាន់ សំកាស់ ចុះថ្ងៃទី០២ ខែកញ្ញា ឆ្នាំ២០២៤ ស្តីពីការស្នើសុំចុះប្រមូល ទិន្នន័យសម្រាប់ការសរសេរនិក្ខេបបទថ្នាក់បណ្ឌិត។

សេចក្តីដូចមានចែងក្នុងកម្មវត្ថុ និងយោងខាងលើ សាកលវិទ្យាល័យកម្ពុជា សូមគោរព ជម្រាបជូន **ឯកឧត្តមបណ្ឌិតសភាចារ្យ នាយករដ្ឋមន្ត្រី** មេត្តាជ្រាបជំនុំជំរុញសុំថា៖

លោក ខាន់ សំកាស់ ជាបេក្ខជនបណ្ឌិត ជំនាញវិទ្យាសាស្ត្រអប់រំ នៅមហាវិទ្យាល័យអប់រំនៃសាកល វិទ្យាល័យកម្ពុជា។ ដើម្បីបំពេញគ្រប់លក្ខខណ្ឌនៃការបញ្ចប់ការសិក្សាថ្នាក់បណ្ឌិត តម្រូវឱ្យចុះប្រមូល ទិន្នន័យសរសេរនិក្ខេបបទបញ្ចប់ការសិក្សាថ្នាក់បណ្ឌិត លើប្រធានបទ “ផលជះការជាអ្នកដឹកនាំ បច្ចេកទេសរបស់នាយកសាលាលើការពង្រឹង និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀនសាលាមធ្យមសិក្សា ជនធាននៅកម្ពុជា / The Impact of School Directors' Instructional Leadership on Teachers' Collective Efficacy and Commitment at the Secondary Resource Schools in Cambodia”

នៅតាមបណ្ណាវិទ្យាល័យរដ្ឋ ចំនួន ១២ នៅក្នុងខេត្តកំពង់ធំ កំពង់ឆ្នាំង តាកែវ កំពត ព្រះសីហនុ និង រាជធានីភ្នំពេញ ចាប់ពីថ្ងៃទី១២ ខែកញ្ញា ឆ្នាំ២០២៤ ដល់ថ្ងៃទី១៨ ខែតុលា ឆ្នាំ២០២៤ ហើយរាល់ ព័ត៌មានដែលបានផ្តល់នឹងត្រូវរក្សាជាការសម្ងាត់ និងប្រើប្រាស់សម្រាប់តែការសិក្សាស្រាវជ្រាវតែប៉ុណ្ណោះ។ សូមជូនភ្ជាប់នូវបញ្ជីរាយនាមឈ្មោះវិទ្យាល័យគោលដៅ ចំនួន ១ច្បាប់ និងកម្រងសំណួរចំនួន ១ច្បាប់។

មធ្យមសាលា/ក្រុមប្រឹក្សា / វិទ្យាស្ថាន

- មធ្យមសាលាសិក្សាសាសនា
- មធ្យមសាលាសម្រាប់ ការអប់រំវិទ្យា ប្រភេទនាយកដ្ឋាន
- មធ្យមសាលាអប់រំវិទ្យា អក្ខរកម្មសាសនា និងបច្ចេកវិទ្យា
- ក្រុមប្រឹក្សាស្រាវជ្រាវ និងបច្ចេកវិទ្យាសាស្ត្រ
- វិទ្យាស្ថានសិក្សា ស្រាវជ្រាវជាតិ

មូលនិធិ

- មូលនិធិ សាកលវិទ្យាល័យកម្ពុជា

ទំព័រទី ១

បណ្តាញសង្គម: [f The University of Cambodia](#) [t UniversityofCambodia](#) [@theuniversityofcambodia](#) [in The University of Cambodia](#) [v The University of Cambodia](#)

អាសយដ្ឋាន: ផ្លូវជាតិលេខ១ សង្កាត់ទឹកថ្លា ខណ្ឌសែនសុខ រាជធានីភ្នំពេញ | **ទូរស័ព្ទ:** ៩១៥ ៨៨៨ ៨៨៨ ៨៨៨ | **ទូរសារ:** ៩១៥ ៨៨៨ ៨៨៨ ៨៨៨ | **គេហទំព័រ:** www.uc.edu.kh

អាស្រ័យហេតុនេះ សូម **ឯកឧត្តមបណ្ឌិតសភាចារ្យ ឧបនាយករដ្ឋមន្ត្រី** មេត្តា
អនុញ្ញាតឱ្យលោក ខាន់ សំកាស់ បានចុះប្រមូលទិន្នន័យស្រាវជ្រាវ ដោយសេចក្តីអនុគ្រោះបំផុត។

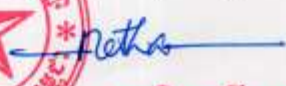
សូម **ឯកឧត្តមបណ្ឌិតសភាចារ្យ ឧបនាយករដ្ឋមន្ត្រី** មេត្តាទទួលនូវការគោរពដ៏
ខ្ពង់ខ្ពស់អំពីខ្ញុំបាទ។

ថ្ងៃ ព្រហស្បតិ៍ ៣ កើត

ខែកុម្ភៈ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨

រាជធានីភ្នំពេញ ថ្ងៃទី ០៥ ខែកញ្ញា ឆ្នាំ២០២៤

ឯកឧត្តមបណ្ឌិតសភាចារ្យ
សាកលវិទ្យាធិការ ឧទុលបន្ទុកសិក្សា


បណ្ឌិត អ៊ុំ អេសា

សូមជូនដំណឹង
លោក ខាន់ សំកាស់
០១៦ ៦៣៣ ៩៨៦
០១៧ ៧៧០ ៧៨៦

ទំព័រទី២

បណ្តាញសង្គម:  The University of Cambodia-UC  UniversityofCambodia  theuniversityofcambodia  The University of Cambodia  The University of Cambodia

អាសយដ្ឋាន: ផ្លូវលំប្រើក សង្កាត់បឹងកក់ ខណ្ឌសែនសុខ រាជធានីភ្នំពេញ ប្រអប់សំបុត្រលេខ: ៩១៧ រាជធានីភ្នំពេញ ព្រះរាជាណាចក្រកម្ពុជា ២០០០
ការិយាល័យរដ្ឋបាល: (៨៨៩-២៣) ៩៩៣ ២៧៤; ការិយាល័យផ្តល់ព័ត៌មាន: (៨៨៩-២៣) ៩៩៣ ២៧៦, (៨៨៩-៩៣) ៧៧៧ ៨៧៦; ទូរស័ព្ទលេខ: (៨៨៩-២៣) ៩៩៣ ២៨៤
អ៊ីម៉ែល: info@uc.edu.kh, admissions@uc.edu.kh, library@uc.edu.kh, គេហទំព័រ www.uc.edu.kh

ក្រសួងអប់រំ យុវជន និងកីឡា

ថ្ងៃ ឆ្នាំ ខែ ១៩៩៩ ឆ្នាំរោង ឆស័ក ព.ស.២៥៤២
រាជធានីភ្នំពេញ ថ្ងៃទី១០ ខែកញ្ញា ឆ្នាំ ២០២៤

លោក លោកស្រី ប្រធានមជ្ឈមណ្ឌល យុវជន និងកីឡាព័ទ្ធជាតិកម្ពុជា ខេត្តកំពង់ធំ
កំពង់ឆ្នាំង តាមរយៈ កំពង់ ជិតខេត្តព្រះសីហនុ

យោង៖ - ចំណារេងភាពជំនួងខ្ពស់ ចុះថ្ងៃទី១០ ខែកញ្ញា ឆ្នាំ២០២៤ របស់ ឯកឧត្តមបណ្ឌិតសភាចារ្យឧបនាយករដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា

- លិខិតលេខ ៣០៦/២៤ សក/លច ចុះថ្ងៃទី០៥ ខែកញ្ញា ឆ្នាំ២០២៤ របស់ សាកលវិទ្យាល័យកម្ពុជា។

តបតាមកម្មវត្ថុ និងយោងខាងលើ ខ្ញុំសូមជម្រាប លោក លោកស្រី ប្រធាន ជ្រាបជាន់ ក្រសួងអប់រំ យុវជន និងកីឡា បានអនុញ្ញាតឱ្យ លោក ខាន់ សំកាស់ ដែលបច្ចុប្បន្នជាបេក្ខជនថ្នាក់បណ្ឌិត នៃមហាវិទ្យាល័យ អប់រំ សាកលវិទ្យាល័យកម្ពុជា ចុះប្រមូលទិន្នន័យសម្រាប់ការសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត លើប្រធានបទ “ផលជះកាតព្វកិច្ចដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើកាតព្វកិច្ច និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន សាលាមជ្ឈមណ្ឌលធនធាននៅកម្ពុជា” ។ លោក ខាន់ សំកាស់ នឹងចុះប្រមូលទិន្នន័យ លើប្រធានបទខាងលើ នៅវិទ្យាល័យរដ្ឋប៉ុន្មាន ១២ ដូចមានក្នុងតារាងជូនភ្ជាប់ តាមរយៈការបំពេញកម្រងសំណួរពីលោកគ្រូអ្នកគ្រូ ចាប់ពីថ្ងៃទី១៦ ខែកញ្ញា ដល់ថ្ងៃទី១៨ ខែតុលា ឆ្នាំ២០២៤ ។

សេចក្តីដូចបានជម្រាបជូនខាងលើ សូម លោក លោកស្រី ប្រធាន ជ្រាប និងសម្របសម្រួលជូន លោក ខាន់ សំភាសំ បានចុះប្រមូលទិន្នន័យ តាមការគួរ ។

សូម លោក លោកស្រី ប្រធាន ទទួលនូវការរាប់អានដ៏ស្មោះត្រង់

ជ. រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា
រដ្ឋបាលនាយករដ្ឋមន្ត្រី

စန္ဒရီ
 မေတ္တာတို့ကလေး
 ကလေးတို့
 ကလေးတို့

អ៊ែ ម៉ូត

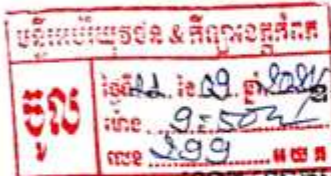


ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងអប់រំ យុវជន និងកីឡា

លេខ: ៤៩៣៤ អយក.ប

ថ្ងៃ ព្រហស្បតិ៍ ខែ កញ្ញា ឆ្នាំ ២០២៤
រាជធានីភ្នំពេញ ថ្ងៃទី ១០ ខែ កញ្ញា ឆ្នាំ ២០២៤



រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា
ជម្រាបជូន

លោក លោកស្រី ប្រធានមន្ទីរអប់រំ យុវជន និងកីឡារាជធានីភ្នំពេញ ខេត្តកំពង់ចាម កំពង់ឆ្នាំង កំពត កំពង់ធំ និងខេត្តព្រះសីហនុ

កម្មវត្ថុ: សំណើសុំសម្របសម្រួលជូន លោក ខាន់ សំកាស់ ចុះប្រមូលទិន្នន័យស្រាវជ្រាវសម្រាប់ការសរសេរ និក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត ។

យោង: - ចំណាត់ការកាតព្វកិច្ចលេខ ១២ ចុះថ្ងៃទី ១០ ខែ កញ្ញា ឆ្នាំ ២០២៤ របស់ ឯកឧត្តមបណ្ឌិតសភាចារ្យរដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា

- លិខិតលេខ ៣០៦/២៤ សក/លច ចុះថ្ងៃទី ០៥ ខែ កញ្ញា ឆ្នាំ ២០២៤ របស់ សាកលវិទ្យាល័យកម្ពុជា។

តបតាមកម្មវត្ថុ និងយោងខាងលើ ខ្ញុំសូមជម្រាប លោក លោកស្រី ប្រធាន ជ្រាបថា: ក្រសួងអប់រំ យុវជន និងកីឡា បានអនុញ្ញាតឱ្យ លោក ខាន់ សំកាស់ ដែលបច្ចុប្បន្នជាបេក្ខជនថ្នាក់បណ្ឌិត នៃមហាវិទ្យាល័យ អប់រំ សាកលវិទ្យាល័យកម្ពុជា ចុះប្រមូលទិន្នន័យសម្រាប់ការសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត លើប្រធានបទ "ផលជះការពារអាក្រក់នៃការប្រើប្រាស់សារធាតុចម្រុះសាធារណៈលើការពង្រីកផ្ទៃក្នុង និងការប្រើប្រាស់ស្រូវប្រៀន សាលាមជ្ឈមណ្ឌលសិក្សាធនធាននៅកម្ពុជា" ។ លោក ខាន់ សំកាស់ នឹងចុះប្រមូលទិន្នន័យ លើប្រធានបទខាងលើ នៅវិទ្យាល័យរដ្ឋចំនួន ១២ ដូចមានក្នុងតារាងជូនភ្ជាប់ តាមរយៈការបំពេញកម្រងសំណួរពីលោកគ្រូអ្នកគ្រូ ចាប់ពីថ្ងៃទី ១៦ ខែ កញ្ញា ដល់ថ្ងៃទី ១៨ ខែ តុលា ឆ្នាំ ២០២៤ ។

សេចក្តីដូចបានជម្រាបជូនខាងលើ សូម លោក លោកស្រី ប្រធាន ជ្រាប និងសម្របសម្រួលជូន លោក ខាន់ សំកាស់ បានចុះប្រមូលទិន្នន័យ តាមការគួរ ។

សូម លោក លោកស្រី ប្រធាន ទទួលនូវការរាប់អានដ៏ស្មោះត្រង់

ជម្រាបជូន
រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា
រដ្ឋលេខាធិការ

អ៊ុន បូរិត

ចម្លងជូន:
- អគ្គលេខាធិការដ្ឋាន
- លោក ខាន់ សំកាស់
- ដើម្បីជ្រាបជាព័ត៌មាន
- កាលប្បវត្តិ
- ឯកសារ ឧទ្ទកាល័យ

**ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ**

មន្ទីរអប់រំ យុវជន និងកីឡា

លេខ: ៩៩ អយកខ.កព

កំណត់បន្ទាញរឿង

អង្គភាព: វិទ្យាស្ថាន ២៤ ឆ្នាំ ២០២៤
 លេខលិខិត: ២៩៣/កខ.កព ចុះថ្ងៃទី ១០.៩.២០២៤
 កម្មវត្ថុ: កីឡា

យោបល់មន្ត្រីជំនាញ ការិយាល័យ សូមគោរពជូន	យោបល់លោកប្រធានការិយាល័យ សូមគោរពជូន	រក្សា ខេត្តកំពង់ចាម
លោកប្រធានការិយាល័យ ១១.០៩.២០២៤	លោកប្រធានមន្ទីរ ១១.០៩.២០២៤	គ្រូសម្រាប់ការសរសេរ
		ឆ្លាតសកាចារ្យឧបនាយក

យោបល់ថ្នាក់ដឹកនាំមន្ទីរ
 ១១.០៩.២០២៤

សាកលវិទ្យាល័យកម្ពុជា
 ៖ ជ្រាបថា: ក្រសួងអប់រំ
 រដ្ឋាភិបាល នៃមហាវិទ្យាល័យ
 កំពង់ចាម លើប្រធានបទ
 ប្រជាជនរបស់គ្រូបង្រៀន
 រ លើប្រធានបទខាងលើ
 សំណួរពីលោកគ្រូអ្នកគ្រូ

រម្របសម្រួលជូន លោក

៖ យុវជន និងកីឡា

មន្ត្រីជំនាញ
 -អគ្គលេខាធិការដ្ឋាន
 -លោក ខាត់ សំភារៈ
 -ដើម្បីជ្រាបជាព័ត៌មាន
 -កាលប្បវត្តិ
 -ឯកសារ: ឧទ្ទកាល័យ



អ៊ុយ បូរាត



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងអប់រំ យុវជន និងកីឡា

លេខ: ៤៩៣៤ អយក.ប

ខ្លឹមសារ យុវជន និងកីឡា រាជធានីភ្នំពេញ
កងរដ្ឋ ថ្ងៃទី ១១ ខែ កញ្ញា ឆ្នាំ ២០២៤
ក្រសួង អប់រំ យុវជន និងកីឡា
បានអនុញ្ញាត: ប្រធាន

ថ្ងៃ ពុធ ១១ ខែ កញ្ញា ឆ្នាំ ២០២៤ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨
រាជធានីភ្នំពេញ ថ្ងៃទី ១០ ខែ កញ្ញា ឆ្នាំ ២០២៤

ជូនដំណឹង ដល់ លោក លោកស្រី ប្រធានមន្ទីរអប់រំ យុវជន និងកីឡា ខេត្តកំពង់ធំ
កំពង់ឆ្នាំង កំពង់ចាម និងខេត្តព្រះសីហនុ

លោក លោកស្រី ប្រធានមន្ទីរអប់រំ យុវជន និងកីឡា ខេត្តកំពង់ធំ កំពង់ឆ្នាំង កំពង់ចាម និងខេត្តព្រះសីហនុ

កម្មវត្ថុ: សំណើសុំសម្របសម្រួលជូន លោក ខាន់ សំកាស់ ចុះប្រមូលទិន្នន័យស្រាវជ្រាវសម្រាប់ការសរសេរ និងរៀបចំបញ្ចប់ថ្នាក់បណ្ឌិត ។

យោង: - ចំណាត់ការជាផ្លូវការ ចុះថ្ងៃទី ១០ ខែ កញ្ញា ឆ្នាំ ២០២៤ របស់ ឯកឧត្តមបណ្ឌិតសភាចារ្យឧបនាយករដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា

- លិខិតលេខ ៣០៦/២៤ សក/លច ចុះថ្ងៃទី ០៥ ខែ កញ្ញា ឆ្នាំ ២០២៤ របស់ សាកលវិទ្យាល័យកម្ពុជា។

តបតាមកម្មវត្ថុ និងយោងខាងលើ ខ្ញុំសូមជម្រាប លោក លោកស្រី ប្រធាន ជ្រាបថា: ក្រសួងអប់រំ យុវជន និងកីឡា បានអនុញ្ញាតឱ្យ លោក ខាន់ សំកាស់ ដែលបច្ចុប្បន្នជាបេក្ខជនថ្នាក់បណ្ឌិត នៃមហាវិទ្យាល័យអប់រំ សាកលវិទ្យាល័យកម្ពុជា ចុះប្រមូលទិន្នន័យសម្រាប់ការសរសេរនិងរៀបចំបញ្ចប់ថ្នាក់បណ្ឌិត លើប្រធានបទ "ផលជះការណ៍អ្នកដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើភាពជឿជាក់ និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀនសាលាមធ្យមសិក្សាធនធាននៅកម្ពុជា" ។ លោក ខាន់ សំកាស់ នឹងចុះប្រមូលទិន្នន័យ លើប្រធានបទខាងលើនៅវិទ្យាល័យរដ្ឋចំនួន ១២ ដូចមានក្នុងតារាងជូនភ្ជាប់ តាមរយៈការបំពេញកម្រងសំណួរពីលោកគ្រូអ្នកគ្រូចាប់ពីថ្ងៃទី ១៦ ខែ កញ្ញា ដល់ថ្ងៃទី ១៨ ខែ តុលា ឆ្នាំ ២០២៤ ។

សេចក្តីដូចបានជម្រាបជូនខាងលើ សូម លោក លោកស្រី ប្រធាន ជ្រាប និងសម្របសម្រួលជូន លោក ខាន់ សំកាស់ បានចុះប្រមូលទិន្នន័យ តាមការគួរ ។

សូម លោក លោកស្រី ប្រធាន ទទួលនូវការរាប់អានដ៏ស្មោះត្រង់

ជូនដំណឹង ដល់ លោក លោកស្រី ប្រធានមន្ទីរអប់រំ យុវជន និងកីឡា ខេត្តព្រះសីហនុ



អ៊ុច បូរត

បញ្ជូនជូន:
- អគ្គលេខាធិការដ្ឋាន
- លោក ខាន់ សំកាស់
- ដើម្បីជ្រាបជាព័ត៌មាន
- កាលប្បវត្តិ
- ឯកសារ ឧទ្ធរណ៍

លេខ ២៣១ ចល.អយក.ក ២២២

បានចំណុះត្រឹមត្រូវតាមច្បាប់ដើម និងបញ្ជូនមក៖

- គ្រប់ការិយាល័យនៃមន្ទីរអយក.ក (៣កំព័ន្ធ)
- ការិយាល័យ អយក.នៃរដ្ឋបាលខណ្ឌ (៣កំព័ន្ធ)

"ដើម្បីជូនជ្រាបជាព័ត៌មាន"

-វិទ្យាល័យគោលដៅ (ដូចមានក្នុងបញ្ជីជូនភ្ជាប់)

"ដើម្បីសម្របសម្រួល និងសហការតាមកាលបរិច្ឆេទខាងលើ"

-លោក **ខាន់ សំគាស់**

"ទំនាក់ទំនងជាមួយគណៈនាយកគ្រឹះស្ថានមធ្យមសិក្សាសាធារណៈ (ដូចមានក្នុងបញ្ជីជូនភ្ជាប់)

ដោយផ្ទាល់ជាមុន ដើម្បីរៀបចំកិច្ចការខាងលើ ប្រកបដោយប្រសិទ្ធភាពដោយចៀសវាងការប៉ះពាល់
ម៉ោងសិក្សារបស់សិស្ស"

-ឯកសារ ការិយាល័យមធ្យមសិក្សាចំណេះទូទៅ

ថ្ងៃទី ១២ ខែ មេសា ឆ្នាំ ២០២៤ ឆ្នាំរោង ឆស័ក ព.ស ២៥៦៨

រាជធានីភ្នំពេញ ថ្ងៃទី ១២ ខែ មេសា ឆ្នាំ ២០២៤

ជ.ប្រធានដ្ឋាន យន្តហោះ និងគណៈកម្មាធិការក្នុងស្ថានភាព



ហេង សារីត



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ប្រធានអប់រំ យុវជន និងកីឡា
មន្ទីរអប់រំ យុវជន និងកីឡាខេត្តកំពង់ធំ
លេខ: ១៤១៦ អយកខ រក

ថ្ងៃចន្ទ ១៤ កើត ខែកទ្របទ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨
កំពង់ធំ ថ្ងៃទី ១៦ ខែកញ្ញា ឆ្នាំ២០២៤

ជម្រាបជូន

-លោក នាយក វិទ្យាល័យ ហ៊ុន សែនបន្ទីន

-លោកស្រី នាយិកា វិទ្យាល័យកំពង់ធំ

កម្មវត្ថុ ៖ ករណីសំណើសុំ សម្របសម្រួលជូន លោក នាង សំកាស់ ចុះប្រមូលទិន្នន័យស្រាវជ្រាវ
សម្រាប់ការសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត ។

យោង ៖ លិខិតលេខ ៤៩៣៤ អយក.រប ចុះថ្ងៃទី ២២ ខែកើត ខែកទ្របទ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨
ថ្ងៃទី ១០ ខែកញ្ញា ឆ្នាំ២០២៤ របស់ក្រសួងអប់រំ យុវជន និងកីឡា ។

សេចក្តីដូចមានចែងក្នុងកម្មវត្ថុ និងយោងខាងលើ សូមជម្រាបជូន លោក នាយក វិទ្យាល័យ
ហ៊ុន សែនបន្ទីន និងលោកស្រីនាយិកា វិទ្យាល័យកំពង់ធំ ជ្រាបថា ៖ ករណីសំណើសុំសម្របសម្រួល
ជូនលោកនាង សំកាស់ ចុះប្រមូលទិន្នន័យស្រាវជ្រាវសម្រាប់ការសរសេរនិក្ខេបបទ បញ្ចប់ថ្នាក់បណ្ឌិត
នោះ មន្ទីរអប់រំ យុវជន និងកីឡា បានអនុញ្ញាតជាគោលការណ៍ហើយសូមស្នើលោកនាយក លោកស្រី
នាយិកា សាលាទាំងពីរ សម្របសម្រួល និងបង្កលក្ខណៈងាយស្រួលជូន លោក នាង សំកាស់ ដើម្បី
បានប្រមូលទិន្នន័យស្រាវជ្រាវ សម្រាប់ការសរសេរនិក្ខេបបទ បញ្ចប់ថ្នាក់បណ្ឌិត របស់ខ្លួន ។

អាស្រ័យដូចបានជម្រាបជូនខាងលើ សូម លោក នាយក និងលោកស្រី នាយិកា មេត្តាជ្រាប
និងចាត់ចែងអនុវត្ត ឱ្យមានប្រសិទ្ធភាព តាមការគួរ ចាប់ពីថ្ងៃទី ១៦ កញ្ញា ដល់ ១៨ តុលា ២០២៤ ។

សូម លោក លោកស្រី ទទួលនូវការរាប់អានពីខ្ញុំ



ប្រធានមន្ទីរអប់រំ យុវជន និងកីឡា

តាង ប៊ុនហុន

បម្រុងជូន

- ក្រសួងអប់រំ យុវជន និងកីឡា
- សាកលវិទ្យាល័យកម្ពុជា
(ដើម្បីគោរពជូនជ្រាប)
- ឯកសារ កាលប្បវត្តិ
- ការវិជ្ជាបាល



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងអប់រំ យុវជន និងកីឡា
មន្ទីរអប់រំ យុវជន និងកីឡាខេត្តកំពង់ឆ្នាំង
លេខ: ៥៤២ អយកខ.ប.ជ.វ

សូមគោរពជូន

ឯកឧត្តមបណ្ឌិតសភាចារ្យ ឧបនាយករដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជននិងកីឡា

កម្មវត្ថុ: ការសម្របសម្រួលកម្មវិធីចុះប្រមូលទិន្នន័យស្រាវជ្រាវសម្រាប់ការសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត។
យោង: - លិខិតលេខ៨៤៩៣៤ អយក.ប ចុះថ្ងៃទី១០ ខែកញ្ញា ឆ្នាំ២០២៤ របស់ក្រសួងអប់រំ យុវជននិងកីឡា ។

ឧបនាយករដ្ឋមន្ត្រីនិងយោងខាងលើ មន្ទីរអប់រំ យុវជននិងកីឡាខេត្ត សូមគោរពជម្រាបជូន **ឯកឧត្តម បណ្ឌិតសភាចារ្យ ឧបនាយករដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជននិងកីឡា** មេត្តាជ្រាបថា មន្ទីរអប់រំ យុវជននិងកីឡាខេត្ត បានប្រកាន់នូវគោលការណ៍សហប្រតិបត្តិការជាមួយគ្រប់អង្គភាព ស្ថាប័ន ដៃគូអភិវឌ្ឍន៍ដែលមានគោលនយោបាយរួមចំណែកគាំទ្រដល់សកម្មភាពអភិវឌ្ឍន៍ស្រាវជ្រាវរបស់ខេត្ត លើគ្រប់ផ្នែកពិសេស ការគាំទ្រ និងអនុវត្ត គោលនយោបាយ របស់រាជរដ្ឋាភិបាល ។

- ក្នុងន័យនេះ មន្ទីរអប់រំ យុវជននិងកីឡាខេត្តកំពង់ឆ្នាំង សូមឆ្លើយតបដូចតទៅ ៖
- ១.អនុញ្ញាតជូន លោក **ខាន់ សំគាស់** បេក្ខភាពបណ្ឌិតនៃសាកលវិទ្យាល័យកម្ពុជាចុះស្រាវជ្រាវប្រមូលទិន្នន័យ លើប្រធានបទ "ផល ផះភាពជាអ្នកដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើភាពជឿជាក់ និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀនសាលាមធ្យមសិក្សាធនធាន នៅកម្ពុជា" ។
 ២. គណៈគ្រប់គ្រង វិទ្យាល័យ ព្រះបាទសុរាម្រិត, វិទ្យាល័យ ហ៊ុន សែន បរិបូណ៌ ត្រូវសហការ សម្របសម្រួលកម្មវិធី កម្មសិក្សាការី លើ ផ្នែកបច្ចេកទេស សមាសភាព ចំនួនអ្នកចូលរួម ពេលវេលា ទីតាំង សុវត្ថិភាពសណ្តាប់ធ្នាប់ និងមធ្យោបាយឬឧបករណ៍គាំទ្រកម្មវិធី ជំនាញទៀត ។
 ៣. ធានាគ្រប់សកម្មភាពប្រតិបត្តិការទាំងអស់ មិនពាក់ព័ន្ធនឹងនិន្នាការគណបក្សនយោបាយ គ្រប់រូបភាព ។
 ៤. ធានាគ្រប់សកម្មភាពប្រតិបត្តិការទាំងអស់ មិនប៉ះពាល់សិទ្ធិ និងផលប្រយោជន៍ របស់កុមារ ។
 ៥. សាមីអង្គភាព ត្រូវជូនដំណឹងទៅអាជ្ញាធរមូលដ្ឋាន ដើម្បីស្នើសុំការឯកភាពនិងគាំទ្រ ។

អាស្រ័យដូចបានគោរពជម្រាបជូនខាងលើ សូម **ឯកឧត្តមបណ្ឌិតសភាចារ្យ ឧបនាយករដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជននិងកីឡា** មេត្តាទទួលជ្រាប ជាសេចក្តីរាយការណ៍ ។

សូម **ឯកឧត្តមបណ្ឌិតសភាចារ្យ ឧបនាយករដ្ឋមន្ត្រី** មេត្តាទទួលនូវការគោរពរាប់អានដ៏ស្មោះស្ម័គ្រពីខ្ញុំបាទ។
ថ្ងៃ **សុក្រ ១១ ខែ កុម្ភៈ ឆ្នាំ រោង ឆស័ក ព.ស. ២៥៦៨**

ធ្វើនៅ ថ្ងៃទី ៣ ខែ កញ្ញា ឆ្នាំ ២០២៤
ប្រធានមន្ទីរ
ម៉ិច តឿ

ឧបនាយករដ្ឋមន្ត្រី
រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា
រដ្ឋបាលក្រុងកំពង់ឆ្នាំង
រដ្ឋបាលស្រុក បរិបូណ៌
វិទ្យាល័យ ព្រះបាទសុរាម្រិត
វិទ្យាល័យ ហ៊ុន សែន បរិបូណ៌
ឯកសារ , គាតប្បវត្តិ
" គោរពជូនជ្រាបជាតំណាង "



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

ក្រសួងអប់រំ យុវជន និងកីឡា
មន្ទីរអប់រំ យុវជន និងកីឡាខេត្តព្រះសីហនុ
លេខ: ៣៤៩ អយកខ. រ.ប

ជម្រាបជូន

នាយិកា វិទ្យាល័យ ចំណេះទូទៅ និងបច្ចេកទេស ក្រុងព្រះសីហនុ
និង លោក នាយក វិទ្យាល័យ ហ៊ុន សែន ខាងក្រៅ

កម្មវត្ថុ: សំណើសម្របសម្រួលជូន **លោក ខាន់ សំភាស** ចុះប្រមូលទិន្នន័យស្រាវជ្រាវ សម្រាប់ការសរសេរ និងរៀបចំបទបញ្ជាក់បណ្ឌិត។

យោង: លិខិតលេខ ៤៩៣៤ អយក.រប ចុះថ្ងៃទី២២ ខែកក្កដា ឆ្នាំ២០២៤ ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨ ត្រូវនឹងថ្ងៃទី១០ ខែកញ្ញា ឆ្នាំ២០២៤ របស់ក្រសួងអប់រំ យុវជន និងកីឡា។

តបតាមកម្មវត្ថុ និងយោងខាងលើ ខ្ញុំមានកិត្តិយស សូមជម្រាបជូន **លោក លោកស្រី នាយក នាយិកា** មេត្តាជ្រាបថា: ក្រសួងអប់រំ យុវជន និងកីឡា បានអនុញ្ញាតឱ្យបេក្ខជនបណ្ឌិត នៃមហាវិទ្យាល័យអប់រំ សាកលវិទ្យាល័យកម្ពុជា ខាន់ សំភាស ចុះប្រមូលទិន្នន័យស្រាវជ្រាវនៅវិទ្យាល័យ របស់លោក លោកស្រី ដើម្បីសរសេរ និងរៀបចំបទបញ្ជាក់បណ្ឌិត ក្រោមប្រធានបទ "ផលជះ ភាពជា អ្នកដឹកនាំ បច្ចេកទេសរបស់នាយកសាលា លើភាពជឿជាក់ និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន សាលា មធ្យមសិក្សាធនធាន នៅកម្ពុជា" ។ ការចុះប្រមូលទិន្នន័យស្រាវជ្រាវ លើប្រធានបទខាងលើនេះ គ្រោង នឹងជួបជាមួយ លោកគ្រូ អ្នកគ្រូ តាមរយៈការបំពេញកម្រងសំណួរ ចាប់ពីថ្ងៃទី១៦ ខែកញ្ញា ដល់ថ្ងៃទី១៨ ខែតុលា ឆ្នាំ២០២៤។

អាស្រ័យដូចបានជម្រាបជូនខាងលើ សូម **លោក លោកស្រី នាយក នាយិកា** ជ្រាបនិង ផ្តល់កិច្ចសហការសម្របសម្រួល ដើម្បីឱ្យដំណើរការចុះប្រមូលទិន្នន័យស្រាវជ្រាវ សម្រាប់សរសេរ និងរៀបចំបទបញ្ជាក់បណ្ឌិត ខាងលើនេះ ប្រកបដោយជោគជ័យ។

សូម **លោក លោកស្រី នាយក នាយិកា** ទទួលនូវការរាប់អានដ៏ស្មោះត្រង់ខ្ញុំ

ថ្ងៃ ២២ ខែកក្កដា ឆ្នាំរោង ឆស័ក ព.ស.២៥៦៨
ខេត្តព្រះសីហនុ ថ្ងៃទី ១៣ ខែកញ្ញា ឆ្នាំ២០២៤

ប្រធានមន្ទីរអប់រំ យុវជន និងកីឡា



ហ៊ុន សារ៉ុន

ចម្លងជូន:

- ក្រសួងអប់រំ យុវជន និងកីឡា
- រដ្ឋបាលខេត្តព្រះសីហនុ
- ដើម្បីជូនជ្រាបជាព័ត៌មាន
- កាលប្បវត្តិ
- ឯកសារ កាតែប



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

បន្តិចម្រឹក យុវជន និងកីឡា
លេខ **605** រ៉ា
ថ្ងៃ **12** ខែ **09** ឆ្នាំ **2024**
ប្រចាំបក.

ក្រសួងអប់រំ យុវជន និងកីឡា
លេខ: **៤៩៣៤** អយក.សប

ថ្ងៃ **ពុធ ១២ ខែ ០៩ ឆ្នាំ ព.ស. ២៥៦៨**
រាជធានីភ្នំពេញ ថ្ងៃទី **១០** ខែ **០៩** ឆ្នាំ **២០២៤**

ឧបនាយករដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា
ជម្រាបជូន

លោក លោកស្រី ប្រធានមន្ទីរអប់រំ យុវជន និងកីឡារាជធានីភ្នំពេញ ខេត្តកំពង់ចាម
កំពង់ឆ្នាំង គាតែម កំពង់ និងខេត្តព្រះសីហនុ

កម្មវត្ថុ សំណើសុំសម្របសម្រួលជូន លោក ខាន់ សំកាស់ ចុះប្រមូលទិន្នន័យស្រាវជ្រាវសម្រាប់ការសរសេរ
និក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត ។

យោង - ចំណាត់ការដ៏ខ្ពង់ខ្ពស់ ចុះថ្ងៃទី១០ ខែកញ្ញា ឆ្នាំ២០២៤ របស់ ឯកឧត្តមបណ្ឌិតសភាចារ្យឧបនាយក
រដ្ឋមន្ត្រី រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា

- លិខិតលេខ ៣០៦/២៤ សក/លច ចុះថ្ងៃទី០៥ ខែកញ្ញា ឆ្នាំ២០២៤ របស់ សាកលវិទ្យាល័យកម្ពុជា។

តបតាមកម្មវត្ថុ និងយោងខាងលើ ខ្ញុំសូមជម្រាប លោក លោកស្រី ប្រធាន ជ្រាបថា៖ ក្រសួងអប់រំ
យុវជន និងកីឡា បានអនុញ្ញាតឱ្យ លោក ខាន់ សំកាស់ ដែលបច្ចុប្បន្នជាបេក្ខជនថ្នាក់បណ្ឌិត នៃមហាវិទ្យាល័យ
អប់រំ សាកលវិទ្យាល័យកម្ពុជា ចុះប្រមូលទិន្នន័យសម្រាប់ការសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត លើប្រធានបទ
“ផលជះការណ៍អ្នកដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើការរៀបចំ និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន
សាលាមធ្យមសិក្សាបានធានានៅកម្ពុជា” ។ លោក ខាន់ សំកាស់ នឹងចុះប្រមូលទិន្នន័យ លើប្រធានបទខាងលើ
នៅវិទ្យាល័យរដ្ឋចំនួន ១២ ដូចមានក្នុងតារាងជូនភ្ជាប់ តាមរយៈការបំពេញកម្រងសំណួរពីលោកគ្រូម្នាក់គ្រូ
ចាប់ពីថ្ងៃទី១៦ ខែកញ្ញា ដល់ថ្ងៃទី១៨ ខែតុលា ឆ្នាំ២០២៤ ។

សេចក្តីដូចបានជម្រាបជូនខាងលើ សូម លោក លោកស្រី ប្រធាន ជ្រាប និងសម្របសម្រួលជូន លោក
ខាន់ សំកាស់ បានចុះប្រមូលទិន្នន័យ តាមការគួរ ។

សូម លោក លោកស្រី ប្រធាន ទទួលនូវការរាប់អានដ៏ស្មោះត្រង់

ជម្រាបជូនក្រសួងអប់រំ យុវជន និងកីឡា
រដ្ឋលេខាធិការ

ចម្លងជូន
- រដ្ឋលេខាធិការដ្ឋាន
- លោក ខាន់ សំកាស់
- ដើម្បីជ្រាបជាព័ត៌មាន
- កាលប្បវត្តិ
- ឯកសារ ឧត្តកាលីយ

(Handwritten signatures and stamps)
លេខ **៤៩៣៤** អយក.សប
ថ្ងៃទី **១០** ខែ **០៩** ឆ្នាំ **២០២៤**



អ៊ុច បូរាត

Appendix E. Initial Instruments for EFA

Part 1: Teachers' Demographic Characteristics

Instruction: This instrument is designed to provide you with an opportunity to express your opinions about school directors' instructional leadership practices at the school and particular situation. There are no right or wrong responses, so do not hesitate to mark the statements as freely and honestly as possible. Please **DO NOT** record your name on this document. Your responses will be kept confidential.

Please put a tick (✓) into the box ☐ and/or write your real set of information in the blank that best describes you.

1. What is your gender?

☐ Male

☐ Female

2. What is your age group?

☐ 25 years or below

☐ 26-35 years

☐ 36-45 years

☐ Above 46 years

3. School Geography

☐ Tonle Sap (Kampong Chhnang and Kampong Thom provinces)

☐ Plain (Takeo and Phnom Penh)

☐ Coast and Sea (Kampot and Preah Siarnouk provinces)

4. What is your highest level of education?

☐ High School degree

☐ Associate degree

☐ Bachelor's degree

☐ Master's degree

5. How long have you been in teaching experience?

☐ 1-5 years

☐ 6-10 years

☐ 11-15 years

☐ 16-20 years

☐ Over 21 year

Part 2: Teachers' Perceptual level on School directors' Instructional Leadership

This part comprises 3 main components of School directors' instructional leadership (1) Creating a School Mission, (2) Managing the Instructional Programs, (3) Developing Positive School Climate.

2.1 Creating a school Missions

Definition: Two functions, Framing the School's Goals and Communicating the School's Goals, comprise the first of the three dimensions, Defining the School's Mission. These concern the principal's role in working with staff to ensure that the school has a clear mission and that the mission is focused on academic progress of its students.

No.	How often does your school practice the following the statement?	Responses				
	Almost never Rarely	3 = Sometimes	4 = often 5 = Almost always			
1	My school principal develops a focused annual school goals.	1	2	3	4	5
2	My school principal uses data on student performance when developing the school's academic goals.					
3	My school principal discusses the school's academic goals with teachers at technical meetings.					
4	My school principal ensures that the school's academic goals are reflect in highly visible display in the school.					
5	When making curricular decisions with teachers, my school principals refers to the school's academic goals					

2.2 Managing the Instructional Program

No.	How often does your school practice the following the statement?	Responses				
	Almost never Rarely	3 = Sometimes	4 = often 5 = Almost always			

1	My school principal clearly appoints a teacher who is responsible coordinating the curriculum across grade levels.	1	2	3	4	5
2	My school principal participates actively in reviewing the needs of curriculum materials.					
3	My school principal individually meets with teachers to discuss student progress.					
4	My school principal discusses student learning achievement with teachers to identify curriculum strengths and weakness.					
5	My school principal use tests and students' scores to assess progress toward school goals.					
6	My school principal visits classrooms to discuss school issues with teachers and students.					

2.3 Developing a Positive School Learning Climate

No.	How often does your school practice the following the statement?	Responses				
	Almost never Rarely	3 = Sometimes	4 = often	5 = Almost always		
1	My school principle requires teachers to reinforce superior performance in staff meetings, newsletters or memos.	1	2	3	4	5
2	My school principal praise teachers privately for their efforts or performance.					
3	My school principal actively supports teachers who employ new skills that they acquired from in-services training in their classroom.					
4	My school principal ensures that every staff member is invited to important in-service activities					
5	My school principal attends or leads teachers in In-service activities concerned with instruction in school.					

6	In every meeting, my school principal gives time at monthly meetings for teachers to share ideas or knowledge from in-service activities.					
7	My school principal uses assemblies to honor students for academic accomplishment or for behavior.					
8	My school principal recognizes superior student learning achievement or improved behaviors by being shown students' photos or name with their work in the office.					
9	My school principal contacts parents to communicate improve or exemplary student performance.					

Part 3: Teachers' Perceptual level on Teachers' Collective Efficacy

3.1. Teachers' Perceptual Level on Group Competency of Teachers' Collective Efficacy

	How much do you agree with each of the following statements?	Responses				
No.	1 = strongly disagree 2 = disagree 3 = unsure 4 = agree 5 = strongly agree					
1	We teachers in this school have abilities to get even the most difficult students engaged in their schoolwork.	1	2	3	4	5
2	Teachers in this school can prevent mobbing effectively.					
3	We teachers in this school are confident that we are able to motivate students to learn.					
4	Teachers in this school can address individual students' needs successfully.					
5	We teachers in this school can create a safe and respectful atmosphere even in the most difficult classes.					
6	We teachers in this school can succeed in teaching even to low-ability students.					

3.2. Teachers' Perceptual Level on Teachers' Task Difficulties

No	How much do you agree with each of the following statements?	Responses				
	1 = strongly disagree 3 = unsure 2 = disagree 5 = strongly agree					
1	The students come to school ready to learn	1	2	3	4	5
2	Home environment provides so many advantages that students here are likely to learn.					
3	The communities provide opportunities that can help student to learn successfully.					
4	Students in this school just are not motivated to learn					
5	Learning in this school is much difficult because students are worried about safety.					
6	Drug and alcohol abuse in the community make learning difficult for students here.					

Part 4: Teachers' Perceptual Level on Teacher Commitment

4.1. Teachers' Perceptual Level on Teachers' Commitment to School

No	<i>How much do you agree with each of the following statements?</i>	Responses				
	1 = strongly disagree 3 = unsure 2 = disagree 5 = strongly agree					
1	I really care about the fate of this school	1	2	3	4	5
2	I speak to my friends proudly that my school is a great workplace.					
3	I find that my values and the value of the school are very similar.					
4	I am proud to tell others that I work in this school.					
5	I believe that this school is the best one to work for					
6	I enjoy discussing my school with people outside it.					
7	I am extremely glad to work in this school					

4.2. Teachers' Perceptual Level on Teachers' Commitment to Students

No	How much do you agree with each of the following statements?	Responses				
	1 = strongly disagree 2 = disagree	3 = unsure	4 = agree	5 = strongly agree		
1	It is my mission to ensure that all my students can succeed.					
2	It is my responsibility to ensure good social relationships among my students					
3	I feel obliged to mediate among rival groups of students.					
4	I feel too ashamed if I do not make all my efforts to improve my students' knowledge or skill.					
5	I try to do my best to help unsuccessful students.					
6	It is my responsibility to help my students to obtain higher academic achievement.					

4.3. Teachers' Perceptual Level on Teachers' Commitment to Teaching

No	Teachers' Perceptual Level on Teachers' commitment to students	Level of perceptions				
		1	2	3	4	5
1	I now want my teaching to be more success than in the past					
2	I sometimes lie awake at night thinking about the next morning' lesson.					
3	I enjoy teaching,					
4	Choosing to become a teacher is one of best choices for me.					
5	I put a lot of personal effort into my teaching					
6	The most important thing in my life is teaching.					

កម្រងសំណួរស្រាវជ្រាវ

ប្រធានបទថ្នាក់បណ្ឌិត
ផលជះភាពជាអ្នកដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើភាពជឿជាក់
និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀនសាលាមធ្យមសិក្សាធនធាននៅកម្ពុជា

សូមគោរពជូន: លោកគ្រូ អ្នកគ្រូ ជាទីរាប់អានបំផុត!

ខ្ញុំបាទឈ្មោះ: **ខាន់ សំភារ** ជាបេក្ខជនបណ្ឌិត ជំនាញវិទ្យាសាស្ត្រអប់រំនៅសាកលវិទ្យាល័យ កម្ពុជា កំពុងធ្វើការស្រាវជ្រាវនិងសរសេរនិក្ខេបបទបញ្ចប់ថ្នាក់បណ្ឌិត ក្រោមប្រធានបទ “ ផលជះ ភាពជាអ្នកដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើភាពជឿជាក់និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន សាលាមធ្យមសិក្សាធនធាននៅកម្ពុជា ” ដែលមានលោកបណ្ឌិត **ម៉ុក សារ៉ែម** ជាសាស្ត្រាចារ្យ ដឹកនាំទី១ និងលោកបណ្ឌិត **សំ រ៉ានី** ជាសាស្ត្រាចារ្យដឹកនាំទី២។

ខ្ញុំបាទ កំពុងស្ថិតក្នុងដំណាក់កាលប្រមូលទិន្នន័យដើម្បីសរសេរនិក្ខេបបទបញ្ចប់ការសិក្សា។ ខ្ញុំ បាទ សូមអនុញ្ញាតគោរពអញ្ជើញ លោកគ្រូ អ្នកគ្រូ ដើម្បីចូលរួមក្នុងការផ្តល់ចម្លើយដ៏សុក្រិតលើ កម្រងសំណួរទាក់ទងនឹងការវាស់ស្ទង់ពីទស្សនៈនិងការយល់ឃើញរបស់លោកគ្រូ អ្នកគ្រូលើ (១) ការអនុវត្តភាពជាអ្នកដឹកនាំបង្គោលបង្រៀនរបស់នាយកសាលា (២) ភាពជឿជាក់និង (៣) ប្តេជ្ញា ចិត្តរបស់គ្រូបង្រៀន។ ខ្ញុំបាទ សូមថ្លែងអំណរគុណយ៉ាងជ្រាលជ្រៅចំពោះលោកនាយក គណៈ គ្រប់គ្រង ដែលបានសហការ និង លោកគ្រូ អ្នកគ្រូក្នុងការផ្តល់នូវពេលវេលាបំពេញកម្រងសំណួរ ទាំងអស់នេះ ទោះបីជាមានការកិច្ចមមាញញឹកយ៉ាងណាក៏ដោយ។ ខ្ញុំសូមធានាដល់អ្នកថារាល់ ចម្លើយនិងព័ត៌មានផ្ទាល់ខ្លួនរបស់អ្នកនឹងត្រូវបានរក្សាជាការសម្ងាត់ ។ លេខទូរស័ព្ទទំនាក់ទំនង របស់ខ្ញុំគឺ ០១៧ ៧៧០ ៧៨៦។

ផ្នែកទី១៖ ព័ត៌មានផ្ទាល់ខ្លួនរបស់លោកគ្រូអ្នកគ្រូ

សូម គូសសញ្ញាជីក (✓) ទៅក្នុងប្រអប់ ☐ ក្នុងចន្លោះដែលអាចរៀបរាប់បានយ៉ាងល្អពីលោកគ្រូ

អ្នកគ្រូ

១. ភេទ៖

☐ ប្រុស

☐ ស្រី

២. អាយុ៖

☐ ២៥ឆ្នាំ ឬ អាយុក្រោម២៥

☐ ២៦ ដល់ ៣៥ឆ្នាំ

☐ ៣៦ ដល់ ៤៥ឆ្នាំ

☐ ៤៦ឆ្នាំ ឡើងទៅ

៣. ទីតាំងភូមិសាស្ត្ររបស់សាលារៀន

☐ តំបន់បឹងទន្លេសាប (កំពង់ឆ្នាំង កំពង់ធំ)

☐ តំបន់វាលទំនាប (តាកែវ រាជធានីភ្នំពេញ)

☐ តំបន់ឆ្នេរនិងសមុទ្រ (កំពត ក្រុងព្រះសីហនុ)

៤. កម្រិតសញ្ញាបត្រខ្ពស់បំផុត៖

☐ បាក់ឌុប

☐ បរិញ្ញាបត្រ

☐ បរិញ្ញាបត្ររង

☐ បរិញ្ញាបត្រជាន់ខ្ពស់

៥. តើអ្នកមានបទពិសោធបង្រៀនប៉ុន្មានឆ្នាំ?

☐ ១ ទៅ ៥ឆ្នាំ

☐ ១៦ ទៅ ២០ឆ្នាំ

☐ ៦ ទៅ ១០ឆ្នាំ

☐ លើសពី២១ឆ្នាំ

☐ ១១ ទៅ ១៥ឆ្នាំ

៦. មកពីវិទ្យាល័យឈ្មោះ៖

- ☐ វិទ្យាល័យ ហ៊ុនសែន បណ្ណ
- ☐ វិទ្យាល័យកំពង់ធំ
- ☐ វិទ្យាល័យ ហ៊ុនសែន បរិបូណ៌
- ☐ វិទ្យាល័យព្រះបាទសុរាម្រឹត
- ☐ វិទ្យាល័យជាស៊ីមតាកែវ
- ☐ វិទ្យាល័យសម្តេចឪ
- ☐ វិទ្យាល័យចំណេះទូទៅនិងបច្ចេកទេសព្រះរាជសម្ភារ
- ☐ វិទ្យាល័យ ហ៊ុនសែន ឈូក
- ☐ វិទ្យាល័យចំណេះទូទៅនិងបច្ចេកទេសក្រុងព្រះសីហនុ
- ☐ វិទ្យាល័យ ហ៊ុនសែន វាលវេញ
- ☐ វិទ្យាល័យ សម្តេចហ៊ុនសែន ប៉ុនរ៉ានី ច្បារអំពៅ
- ☐ វិទ្យាល័យចំណេះទូទៅនិងបច្ចេកទេស ហ៊ុនសែន ជម្ពូរិន

ផ្នែកទី២៖ ទស្សនៈរបស់លោកគ្រូ អ្នកគ្រូលើភាពជឿជាក់

២.១. ភាពជឿជាក់រួមរបស់គ្រូបង្រៀន

សូមពិចារណាល្អ៖ នីមួយៗក្នុងតារាងខាងក្រោម ហើយគូសរង្វង់ជុំវិញលេខចម្លើយដែលពិតចំពោះអ្នក។ អ្នកអាចជ្រើសរើសចម្លើយបានតែមួយគត់ (1, 2, 3, 4, ឬ 5) ចេញពីកូឡោនចម្លើយ។

ល.រ	តើអ្នកយល់ស្របតាមល្អ៖ នីមួយៗខាងក្រោមកម្រិតណា ?	ចម្លើយ
	1 = មិនយល់ស្របសោះ 2 = មិនយល់ស្រប 4 = យល់ស្រប 5 = យល់ស្របទាំងស្រុង	3 = មិនប្រាកដ

១	លោកគ្រូអ្នកគ្រូនៅក្នុងសាលានេះអាចធ្វើឱ្យសិស្សទាំងអស់ឬសូម្បីតែសិស្សខ្លះខ្លាញ់បានចូលរួមក្នុងការរៀនសូត្រ។	1	2	3	4	5
២	លោកគ្រូអ្នកគ្រូនៅសាលារៀននេះអាចទប់ស្កាត់ក្រុមសិស្សគ្មានសណ្តាប់ធ្នាប់យ៉ាងមានប្រសិទ្ធភាព។	1	2	3	4	5
៣	លោកគ្រូអ្នកគ្រូនៅសាលារៀននេះជឿជាក់ថាអាចលើកទឹកចិត្តសិស្សឱ្យរៀនសូត្រ។	1	2	3	4	5
៤	លោកគ្រូអ្នកគ្រូនៅក្នុងសាលារៀននេះអាចឆ្លើយតបតាមតម្រូវការ ផ្សេងៗរបស់សិស្សម្នាក់ៗដោយជោគជ័យ។	1	2	3	4	5
៥	លោកគ្រូអ្នកគ្រូនៅសាលារៀននេះអាចបង្កើតបរិយាកាសប្រកបដោយសុវត្ថិភាពឬការគោរពនៅក្នុងថ្នាក់សូម្បីតែមានសិស្សរៀនយឺតឬពិការបញ្ញាឬសិស្សខ្លះខ្លាញ់ដោយ។	1	2	3	4	5
៦	លោកគ្រូអ្នកគ្រូនៅសាលារៀននេះអាចទទួលជោគជ័យក្នុងការបង្រៀនសូម្បីតែសិស្សរៀនយឺតក៏ដោយ។	1	2	3	4	5

២.២.ភាពជឿជាក់លើការកិច្ចពិបាក

សូមពិចារណាល្អៗនីមួយៗក្នុងតារាងខាងក្រោម ហើយគូសរង្វង់ជុំវិញលេខចម្លើយដែលពិតចំពោះអ្នក។ អ្នកអាចជ្រើសរើសចម្លើយបានតែមួយគត់ (1, 2, 3, 4, ឬ 5) ចេញពីកូឡោនចម្លើយ។ សូមធានាដល់អ្នកថាពួកគេចម្លើយនិងព័ត៌មានផ្ទាល់ខ្លួនរបស់អ្នកនឹងត្រូវបានរក្សាជាការសម្ងាត់

ល.រ	តើអ្នកយល់ស្របតាមល្អៗនីមួយៗខាងក្រោមកម្រិតណា ?	ចម្លើយ				
	1 = មិនយល់ស្របសោះ 2 = មិនយល់ស្រប	3 = មិនប្រាកដ 4 = យល់ស្រប	5 = យល់ស្របទាំងស្រុង			
៧	សិស្សានុសិស្សមកសាលានេះបានត្រៀមលក្ខណៈគ្រប់គ្រាន់ក្នុងការរៀនសូត្រ។	1	2	3	4	5
៨	បរិយាកាសគ្រួសាររបស់សិស្សមានលក្ខណៈអំណោយផលជាច្រើនដែលអាចធ្វើឱ្យសិស្សនៅសាលានេះចង់រៀនសូត្រ។	1	2	3	4	5
៩	សហគមន៍ជុំវិញសាលារៀនផ្តល់ឱកាសដែលអាចជួយសិស្សានុសិស្សរៀនសូត្របានល្អ។	1	2	3	4	5
១០	សិស្សានុសិស្សនៅសាលារៀននេះមិនមានទឹកចិត្តចង់រៀនសូត្រ។	1	2	3	4	5
១១	ការរៀនសូត្រនៅសាលារៀននេះគឺពិបាកខ្លាំងពីព្រោះសិស្សបារម្ភពីសុវត្ថិភាព។	1	2	3	4	5
១២	ការប្រើប្រាស់គ្រឿងញៀនឬ ការពិសារគ្រឿងស្រវឹងក្នុងសហគមន៍ធ្វើឱ្យការសិក្សារបស់សិស្សមានការលំបាក។	1	2	3	4	5

ផ្នែកទី៣៖ ភាពជាអ្នកដឹកនាំបច្ចេកទេស

៣.១. ការបង្កើតបេសកកម្មសាលារៀន៖

សូមពិចារណាល្អៗនីមួយៗក្នុងតារាងខាងក្រោម ហើយគូសរង្វង់ជុំវិញលេខចម្លើយដែលពិតចំពោះអ្នក។ អ្នកអាចជ្រើសរើសចម្លើយបានតែមួយគត់ (1, 2, 3, 4, ឬ 5) ចេញពីកូឡោនចម្លើយ។ សូមធានាដល់អ្នកថារាល់ចម្លើយនិងព័ត៌មានផ្ទាល់ខ្លួនរបស់អ្នកនឹងត្រូវបានរក្សាជាការសម្ងាត់។

ល.រ	តើសាលារបស់អ្នកអនុវត្តខ្លឹមសារនីមួយៗខាងក្រោមកម្រិតណា ?	ចម្លើយ				
	1= តិចតួចបំផុត (០-៥%) 3 = ពេលខ្លះ (២៦-៥០%) 5= តែងតែ (៧៦-១០០%) 2 = ម្តងម្កាល (៦-២៥%) 4= ញឹកញាប់ (៥១-៧៥%)					
១.	សាលារបស់ខ្ញុំបង្កើតគោលដៅប្រចាំឆ្នាំដោយយកចិត្តទុកដាក់។	1	2	3	4	5
២.	សាលារបស់ខ្ញុំប្រើប្រាស់ទិន្នន័យលទ្ធផលសិក្សារបស់សិស្សពេលដែលបង្កើតគោលដៅទាក់ទងនឹងការសិក្សា។	1	2	3	4	5
៣.	នាយកបានពិភាក្សាពីគោលដៅទាក់ទងនឹងការសិក្សារបស់សាលាជាមួយគ្រូនៅពេលប្រជុំបច្ចេកទេស។	1	2	3	4	5
៤.	នាយកធានាថាគោលដៅទាក់ទងនឹងការសិក្សាគឺឆ្លុះបញ្ចាំងពីបញ្ហាជាក់ស្តែងក្នុងសាលា។	1	2	3	4	5
៥.	ឯកសារយោងដែលប្រើរាល់ពេលធ្វើការសម្រេចចិត្តលើកម្មវិធីសិក្សាជាមួយគ្រូ។ នាយកតែងផ្អែកលើគោលដៅទាក់ទងនឹងការសិក្សារបស់សាលា។	1	2	3	4	5

៣.២. ការគ្រប់គ្រងកម្មវិធីបង្រៀន

ល.រ	តើសាលារបស់អ្នកអនុវត្តខ្លឹមសារនីមួយៗខាងក្រោមកម្រិតណា ?	ចម្លើយ				
	1= តិចតួចបំផុត(០-៥%) 2 = ម្តងម្កាល (៦-២៥%) 3 = ពេលខ្លះ (២៦-៥០%) 4= ញឹកញាប់ (៥១-៧៥%) 5= តែងតែ (៧៦-១០០%)					
៦	នៅក្នុងសាលារៀនមានការតែងតាំងអ្នកទទួលខុសត្រូវក្នុងការសម្របសម្រួលកម្មវិធីសិក្សាដែលភ្ជាប់ខ្លឹមសារពីកម្រិតថ្នាក់មួយទៅ	1	2	3	4	5

	កម្រិតថ្នាក់បន្តបន្ទាប់។					
៧	នាយកចូលរួមយ៉ាងសកម្មក្នុងការពិនិត្យមើលតម្រូវការសម្ភារៈរៀន និងបង្រៀនទាក់ទងនឹងកម្មវិធីសិក្សា។	1	2	3	4	5
៨	នាយកជួបគ្រូម្នាក់ៗដើម្បីពិភាក្សាពីការវិវត្តនៃលទ្ធផលសិក្សារបស់សិស្ស។	1	2	3	4	5
៩	នាយកបានពិភាក្សាពីលទ្ធផលសិក្សារបស់សិស្សជាមួយគ្រូៗដើម្បីកំណត់ភាពខ្លាំងនិងខ្សោយរបស់ខ្លឹមសារមេរៀនក្នុងកម្មវិធីសិក្សា។	1	2	3	4	5
១០	សាលារបស់ខ្ញុំប្រើតេស្តផ្សេងៗនិងពិន្ទុរបស់សិស្សដើម្បីវាយតម្លៃការរីកចម្រើននៃការសិក្សារៀបរៀងគោលដៅសិក្សារបស់សាលា។	1	2	3	4	5
១១	នៅក្នុងសាលារបស់ខ្ញុំមានការចុះអធិការកិច្ចតាមថ្នាក់រៀនដើម្បីពិភាក្សាពីបញ្ហាដែលកើតមានក្នុងសាលាជាមួយគ្រូ ឬ សិស្ស។	1	2	3	4	5

៣.៣. ការបង្កើតបរិយាកាសរៀនសូត្រវិជ្ជមាន

ល.រ	តើសាលារបស់អ្នកអនុវត្តខ្លឹមសារនីមួយៗខាងក្រោមកម្រិតណា ?	ចម្លើយ				
	1= តិចតួចបំផុត (០-៥%) 2 = ម្តងម្កាល (៦-២៥%) 3 = ពេលខ្លះ (២៦-៥០%) 4= ញឹកញាប់ (៥១-៧៥%) 5= តែងតែ (៧៦-១០០%)					
១២	សាលារបស់ខ្ញុំតម្រូវឱ្យគ្រូៗពង្រឹងការងារឱ្យបានខ្លាំងបំផុត រាល់ពេលប្រជុំម្តងៗ ឬ ក្នុងសេចក្តីជូនដំណឹងផ្សេងៗ។	1	2	3	4	5
១៣	នៅក្នុងសាលារបស់ខ្ញុំមានការសរសើរដល់គ្រូៗដែលខិតខំប្រឹងប្រែង ឬ បំពេញការងាររបស់ពួកគាត់បានល្អ។	1	2	3	4	5
១៤	នៅក្នុងសាលារបស់ខ្ញុំមានការគាំទ្រដល់គ្រូៗដែលយកជំនាញថ្មីៗ	1	2	3	4	5

	ដែលគាត់បានរៀនពីវគ្គបណ្តុះបណ្តាលផ្សេងៗមកអនុវត្តក្នុងថ្នាក់រៀន។					
១៥	នៅក្នុងសាលារបស់ខ្ញុំមានការធានាថាបុគ្គលិកទាំងអស់ត្រូវបានគេអញ្ជើញឱ្យចូលរួមក្នុងសកម្មភាពបណ្តុះបណ្តាលសំខាន់ៗ។	1	2	3	4	5
១៦	នាយករបស់ខ្ញុំដឹកនាំ ឬ ចូលរួមក្នុងសកម្មភាពបណ្តុះបណ្តាលពាក់ព័ន្ធនឹងការបង្រៀននៅក្នុងសាលា។	1	2	3	4	5
១៧	នៅពេលប្រជុំម្តងៗគេឃើញមានការផ្តល់ពេលវេលាសម្រាប់គ្រូចែករំលែកគំនិត ឬ ចំណេះដឹងដែលបានរៀនពីសកម្មភាពបណ្តុះបណ្តាលផ្សេងៗ។	1	2	3	4	5
១៨	នាយករបស់ខ្ញុំប្រើប្រាស់វាទិការប្រជុំផ្សេងៗដើម្បីផ្តល់កិត្តិយសដល់សិស្សានុសិស្សដែលទទួលបានលទ្ធផលសិក្សាល្អឬអាកប្បកិរិយាល្អ	1	2	3	4	5
១៩	សាលាបានទទួលស្គាល់លទ្ធផលសិក្សាឬឥរិយាបថល្អរបស់សិស្សដោយបង្ហាញរូបថតឬឈ្មោះជាមួយនឹងស្នាដៃរបស់គេនៅក្នុងការិយាល័យ។	1	2	3	4	5
២០	សាលាបានទាក់ទងទៅមាតាបិតាសិស្សដើម្បីប្រាប់ពីលទ្ធផលសិក្សាល្អប្រសើរ ឬឥរិយាបថល្អរបស់កូនគាត់។	1	2	3	4	5

ផ្នែកទី៤៖ ការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀន

៤.១.ការប្តេជ្ញាចិត្តរបស់គ្រូចំពោះសាលារៀន

សូមពិចារណាល្អ៖នីមួយៗក្នុងតារាងខាងក្រោម ហើយគូសរង្វង់ជុំវិញលេខចម្លើយដែលពិតចំពោះ

អ្នក។ អ្នកអាចជ្រើសរើសចម្លើយបានតែមួយគត់ (1, 2, 3, 4, ឬ 5) ចេញពីកូឡោនចម្លើយ។

សូមធានាដល់អ្នកថាវាពិតជាចម្លើយនិងព័ត៌មានផ្ទាល់ខ្លួនរបស់អ្នកនឹងត្រូវបានរក្សាជាការសម្ងាត់

ល.រ	តើអ្នកយល់ស្របតាមល្អ៖នីមួយៗខាងក្រោមកម្រិតណា ?	ចម្លើយ				
	1 = មិនយល់ស្របសោះ 4 = យល់ស្រប	2 = មិនយល់ស្រប 5 = យល់ស្របទាំងស្រុង	3 = មិនប្រាកដ			
១	ខ្ញុំពិតជាយកចិត្តទុកដាក់ខ្លាំងអំពីវាសនានៃសាលារៀនខ្ញុំ។	1	2	3	4	5
២	ខ្ញុំនិយាយទៅកាន់មិត្តភក្តិខ្ញុំដោយមោទនភាពថាសាលារៀននេះជាកន្លែងធ្វើការដ៏អស្ចារ្យ។	1	2	3	4	5
៣	ខ្ញុំយល់ឃើញថាតម្លៃរបស់ខ្ញុំនិងតម្លៃរបស់សាលាគឺដូចគ្នា។	1	2	3	4	5
៤	ខ្ញុំ មានមោទនភាពក្នុងការប្រាប់មនុស្សទាំងឡាយថា ខ្ញុំធ្វើការនៅសាលារៀននេះ។	1	2	3	4	5
៥	ខ្ញុំយល់ឃើញថាសាលារៀននេះជាសាលាដ៏ល្អសម្រាប់ការងារ។	1	2	3	4	5
៦	ខ្ញុំរីករាយក្នុងការពិភាក្សាជាមួយមនុស្សមកពីខាងក្រៅអំពីសាលារៀនខ្ញុំ។	1	2	3	4	5
៧	ខ្ញុំសប្បាយចិត្តខ្លាំងណាស់ដែលធ្វើការនៅសាលារៀននេះ។	1	2	3	4	5

៤.២. ការប្តេជ្ញាចិត្តរបស់គ្រូចំពោះសិស្ស

សូមពិចារណាល្អ៖នីមួយៗក្នុងតារាងខាងក្រោម ហើយគូសរង្វង់ជុំវិញលេខចម្លើយដែលពិតចំពោះអ្នក។ អ្នកអាចជ្រើសរើសចម្លើយបានតែមួយគត់ (1, 2, 3, 4, ឬ 5) ចេញពីកូឡេនចម្លើយ។ សូមធានាដល់អ្នកថារាល់ចម្លើយនិងព័ត៌មានផ្ទាល់ខ្លួនរបស់អ្នកនឹងត្រូវបានរក្សាជាការសម្ងាត់ ។

ល្អ៖	តើអ្នកយល់ស្របតាមល្អ៖នីមួយៗខាងក្រោមម្រិតណា ?	ចម្លើយ				
	1 = មិនយល់ស្របសោះ 4 = យល់ស្រប	2 = មិនយល់ស្រប 5 = យល់ស្របទាំងស្រុង	3 = មិនប្រាកដ			
៨	វាជាបេសកកម្មរបស់ខ្ញុំក្នុងការធានាថាសិស្សខ្ញុំទាំងអស់អាចជោគជ័យក្នុងការសិក្សា។	1	2	3	4	5
៩	វាជាទំនួលខុសត្រូវរបស់ខ្ញុំក្នុងធានាឱ្យមានទំនាក់ទំនងល្អរវាងសិស្សានុសិស្សទាំងអស់។	1	2	3	4	5
១០	ខ្ញុំមានអារម្មណ៍វាជាកាតព្វកិច្ចចាំបាច់ដែលជួយសម្រុះសម្រួលរវាងសិស្សមកពីក្រុមជម្លោះផ្សេងៗគ្នា។	1	2	3	4	5
១១	ខ្ញុំមានអារម្មណ៍អាម៉ាស់ប្រសិនបើខ្ញុំមិនខិតខំប្រឹងប្រែងពេញទំហឹងដើម្បីជួយបង្កើនចំណេះដឹងឬជំនាញរបស់សិស្សខ្ញុំ។	1	2	3	4	5
១២	ខ្ញុំព្យាយាមអស់ពីសមត្ថភាពដើម្បីជួយសិស្សរៀនយឹត។	1	2	3	4	5
១៣	វាជាទំនួលខុសត្រូវរបស់ខ្ញុំក្នុងការជួយសិស្សានុសិស្សឱ្យទទួលបានលទ្ធផលសិក្សាខ្ពស់។	1	2	3	4	5

៤. ៣.ការប្តេជ្ញារបស់គ្រូចំពោះការបង្រៀន

សូមពិចារណាល្អ៖នីមួយៗក្នុងតារាងខាងក្រោម ហើយគូសរង្វង់ជុំវិញលេខចម្លើយដែលពិតចំពោះ

អ្នក។ អ្នកអាចជ្រើសរើសចម្លើយបានតែមួយគត់ (1, 2, 3, 4, ឬ 5) ចេញពីកូឡោនចម្លើយ។ សូម
ធានាដល់អ្នកថារាល់ចម្លើយនិងព័ត៌មានផ្ទាល់ខ្លួនរបស់អ្នកនឹងត្រូវបានរក្សាជាការសម្ងាត់ ។

ល.រ	តើអ្នកយល់ស្របតាមល្អ៖នីមួយៗខាងក្រោមកម្រិតណា ?	ចម្លើយ				
	1 = មិនយល់ស្របសោះ 2 = មិនយល់ស្រប 4 = យល់ស្រប 5 = យល់ស្របទាំងស្រុង	3 = មិនប្រាកដ				
១៤	ខ្ញុំចង់ឱ្យការបង្រៀនរបស់ខ្ញុំបច្ចុប្បន្នទទួលបានជោគជ័យជាងពេលអតីតកាល។	1	2	3	4	5
១៥	ពេលខ្លះខ្ញុំភ្ញាក់ដឹងខ្លួននៅពេលយប់ហើយគិតពីមេរៀនដែលត្រូវបង្រៀននៅព្រឹកបន្ទាប់។	1	2	3	4	5
១៦	ខ្ញុំសប្បាយរីករាយក្នុងបង្រៀន។	1	2	3	4	5
១៧	ការជ្រើសរើសក្លាយជាគ្រូបង្រៀនជាជម្រើសដ៏ល្អមួយសម្រាប់ខ្ញុំ។	1	2	3	4	5
១៨	ខ្ញុំបានបង្កើនការខិតខំដោយខ្លួនឯងនៅក្នុងការបង្រៀនរបស់ខ្ញុំ។	1	2	3	4	5
១៩	រឿងរ៉ាវដ៏សំខាន់បំផុតនៅក្នុងជីវិតខ្ញុំគឺការបង្រៀន។	1	2	3	4	5

សូមថ្លែងអំណរគុណដល់លោកគ្រូ អ្នកគ្រូ ដែលបានជួយបំពេញកម្រងសំណួរខាងលើទាំងអស់នេះ។

Appendix G. Validated and Refined Instrument for Further Analysis after EFA

1. Validated and Refined Factors of Instructional Leadership after EFA

1.1 Creating a School Missions

No.	Perceptions on Creating School Missions of School Directors' Instructional Leadership	Level of Practices				
		1	2	3	4	5
1	My school principal develops a focused annual school goals.					
2	My school principal uses data on student performance when developing the school's academic goals.					
3	My school principal discusses the school's academic goals with teachers at technical meetings.					
4	My school principal ensures that the school's academic goals are reflect in highly visible display in the school.					
5	When making curricular decisions with teachers, my school principals refers to the school's academic goals					

1.2 Developing a Positive School Learning Climate after EFA

No.	Perceptions on Developing a Positive School Learning Climate of School Directors' Instructional Leadership	Level of Practices				
		1	2	3	4	5
1	My school principal actively supports teachers who employ new skills that they acquired from in-services training in their classroom.					
2	My school principal ensures that every staff member is invited to important in-service activities					
3	My school principal attends or leads teachers in In-service activities concerned with instruction in school.					
4	In every meeting, my school principal gives time at monthly meetings for teachers to share ideas or knowledge from in-service activities.					

5	My school principal uses assemblies to honor students for academic accomplishment or for behavior.					
6	My school principal recognizes superior student learning achievement or improved behaviors by being shown students' photos or name with their work in the office.					

2. Validated and Refined Dimension of TCE after EFA

This part comprises 2 main components of teachers' collective efficacy: (1) Group Competency, (2) Task Difficulties

2.1. Group Competency of Teacher Collective Efficacy

No	Teachers' Perceptual level on group competency of teachers' collective efficacy	Level of Perceptions				
		1	2	3	4	5
1	We teachers in this school have abilities to get even the most difficult students engaged in their schoolwork.					
2	Teachers in this school can prevent mobbing effectively.					
3	We teachers in this school are confident that we are able to motivate students to learn.					
4	Teachers in this school can address individual students' needs successfully.					
5	We teachers in this school can create a safe and respectful atmosphere even in the most difficult classes.					
6	We teachers in this school can succeed in teaching even to low-ability students.					
7	The students come to school ready to learn					
8	Home environment provides so many advantages that students here are likely to learn.					
9	The communities provide opportunities that can help student to learn successfully.					

3. Validated and Refined Dimensions of Teacher Commitment after EFA

3.1. Teacher Commitment to School

No	Teachers' Perceptual Level on Teachers' commitment to school	Level of perceptions				
		1	2	3	4	5
1	I really care about the fate of this school					
2	I speak to my friends proudly that my school is a great workplace.					
3	I find that my values and the value of the school are very similar.					
4	I am proud to tell others that I work in this school.					
5	I believe that this school is the best one to work for					
6	I enjoy discussing my school with people outside it.					
7	I am extremely glad to work in this school					

3.2. Teacher Commitment to Teaching

N o	Teachers' Perceptual Level on Teachers' commitment to teaching	Level of perceptions				
		1	2	3	4	5
1	I now want my teaching to be more success than in the past					
2	I sometimes lie awake at night thinking about the next morning' lesson.					
3	I enjoy teaching,					
4	Choosing to become a teacher is one of best choices for me.					
5	I put a lot of personal effort into my teaching					
6	The most important thing in my life is teaching.					

Appendix H. Demographic Information Codebook

Part 1: Demographic Information

Variable Label	SPSS Variables	Coding instruction	Measurement
What is your gender?	Gender	1= Male 2= Female	Nominal
What is your age?	Age	1= 25 years or below 2= 26-35 years 3= 36-45 years 4=Above 46 years	scale
School Geography	Region	1= Tonle Sap 2= Plain 3= Coast and Sea	Normal
What is your highest level of education?	Education	1= High School degree 2= Associate degree 3= Bachelor's degree 4= Master's degree	Ordinal
How long have you been in teaching experience?	Experience	1= 1-5 years 2= 6-10 years 3= 11-15 years 4= 16-20 years 5= Over 21year	Scale

Appendix I. Instructional Leadership Data Codebook

Part 1: School Mission

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
My school principal develops a focused annual school goals.	SM1	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal uses data on student performance when developing the school's academic goals.	SM2	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal discusses the school's academic goals with teachers at technical meetings.	SM3	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal ensures that the school's academic goals are reflect in highly visible display in the school.	SM4	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
When making curricular decisions with teachers, my school principals refers to the school's academic goals	SM5	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale

Part 2. Manage Instructional Program

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
My school principal clearly appoints a teacher who is responsible coordinating the curriculum across grade levels.	MIP1	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal participates actively in reviewing the needs of curriculum materials.	MIP2	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal individually meets with teachers to discuss student progress.	MIP3	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal discusses student learning achievement with teachers to identify curriculum strengths and weakness.	MIP4	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal use tests and students' scores to assess progress toward school goals.	MIP5	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale

My school principal visits classrooms to discuss school issues with teachers and students.	MIP6	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	Scale
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Part 3: Developing a Positive School Learning Climate

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
My school principle requires teachers to reinforce superior performance in staff meetings, newsletters or memos.	PLC1	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal praise teachers privately for their efforts or performance.	PLC2	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal actively supports teachers who employ new skills that they acquired from in-services training in their classroom.	PLC3	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal ensures that every staff member is invited to important in-service activities	PLC4		
My school principal attends or leads teachers in In-service activities concerned with	PLC5	1= Almost never 2= Rarely 3 = Sometimes	scale

instruction in school.		4 = often 5 = Almost always	
In every meeting, my school principal gives time at monthly meetings for teachers to share ideas or knowledge from in-service activities.	PLC6	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	scale
My school principal uses assemblies to honor students for academic accomplishment or for behavior.	PLC7	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	Scale
My school principal recognizes superior student learning achievement or improved behaviors by being shown students' photos or name with their work in the office.	PLC8	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	Scale
My school principle contacts parents to communicate improve or exemplary student performance.	PLC9	1= Almost never 2= Rarely 3 = Sometimes 4 = often 5 = Almost always	Scale

Appendix J. Teacher Collective Efficacy Data Codebook

Part 1: Group Competency

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
We teachers in this school have abilities to get even the most difficult students engaged in their schoolwork.	GC1	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
Teachers in this school can prevent mobbing effectively.	GC2	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
We teachers in this school are confident that we are able to motivate students to learn.	GC3	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
Teachers in this school can address individual students' needs successfully.	GC4	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
We teachers in this school can create a safe and respectful atmosphere even in the most difficult classes.	GC5	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale

We teachers in this school can succeed in teaching even to low-ability students.	GC6	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	Scale
--	-----	--	-------

Part 2: Task Difficulties

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
The students come to school ready to learn	TD1	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
Home environment provides so many advantages that students here are likely to learn.	TD2	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
The communities provide opportunities that can help student to learn successfully.	TD3	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
Students in this school just are not motivated to learn	TD4	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale

Learning in this school is much difficult because students are worried about safety.	TD5	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
Drug and alcohol abuse in the community make learning difficult for students here.	TD6	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	Scale

Appendix K. Teacher Commitment Data Codebook

Part 1: Teacher commit to School

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
I really care about the fate of this school	TCO1	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I speak to my friends proudly that my school is a great workplace.	TCO2	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I find that my values and the value of the school are very similar.	TCO3	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I am proud to tell others that I work in this school.	TCO4	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I believe that this school is the best one to work for	TCO5	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale

I enjoy discussing my school with people outside it.	TCO6	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	Scale
I am extremely glad to work in this school.	TCO7	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	Scale

Part 2: Teacher Commitment to Students

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
It is my mission to ensure that all my students can succeed.	TCS1	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
It is my responsibility to ensure good social relationships among my students	TCS2	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I feel obliged to mediate among rival groups of students.	TCS3	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale

I feel too ashamed if I do not make all my efforts to improve my students' knowledge or skill.	TCS4	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I try to do my best to help unsuccessful students.	TCS5	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
It is my responsibility to help my students to obtain higher academic achievement.	TCS6	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	Scale

Part 2: Teacher Commitment to Teaching

Variable label	SPSS/M-plus variable Names	Coding instruction	Measurement
I now want my teaching to be more success than in the past	TCT1	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I sometimes lie awake at night thinking about the next morning' lesson.	TCT2	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale

I enjoy teaching,	TCT3	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
Choosing to become a teacher is one of best choices for me.	TCT4	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
I put a lot of personal effort into my teaching	TCT5	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	scale
The most important thing in my life is teaching.	TCT6	1= Strongly disagree 2= Disagree 3 = Not sure 4 = Agree 5 = Strongly agree	Scale

Appendix L. Reliability Tests for Cronbach's Alpha Using SPSS version 23

Reliability Statistics	
Cronbach's Alpha	N of Items
.851	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
GC1	30.8126	15.528	.551	.838
GC2	30.7141	15.619	.594	.833
GC3	30.3829	16.949	.524	.841
GC4	30.8901	15.480	.596	.833
GC5	30.6317	16.317	.557	.837
GC6	30.8998	15.488	.608	.831
GC7	30.6721	15.548	.604	.832
GC8	30.7835	15.616	.562	.836
GC9	30.6591	15.921	.552	.837

Creating School Mission (MS)

Reliability Statistics	
Cronbach's Alpha	N of Items
.857	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SM1	16.9838	5.204	.684	.825
SM2	17.0468	5.252	.640	.836
SM3	16.9144	5.130	.677	.826

SM4	17.0307	5.052	.684	.825
SM5	17.0194	5.081	.677	.826

Developing Positive School Climate (PLC)

Reliability Statistics	
Cronbach's Alpha	N of Items
.876	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PLC1	19.9661	13.104	.712	.850
PLC2	20.2391	12.040	.686	.856
PLC3	19.9257	12.823	.754	.843
PLC4	20.0113	12.765	.699	.852
PLC5	20.0081	13.053	.668	.857
PLC6	19.9467	13.652	.583	.870

Teacher Commitment to Organization (TCO)

Reliability Statistics	
Cronbach's Alpha	N of Items
.919	7

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
TCO1	26.2407	9.332	.624	.918
TCO2	26.3716	8.590	.749	.906

TCO3	26.2423	8.750	.738	.907
TCO4	26.2601	8.571	.797	.901
TCO5	26.2536	8.520	.812	.899
TCO6	26.3086	8.916	.714	.910
TCO7	26.2488	8.524	.800	.901

Teacher Commitment to Teaching (TCT)

Reliability Statistics	
Cronbach's Alpha	N of Items
.886	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
TCT1	22.0436	5.505	.653	.873
TCT2	22.2956	5.429	.571	.888
TCT3	22.0517	5.247	.758	.857
TCT4	22.0792	5.144	.736	.859
TCT5	22.0937	5.244	.769	.855
TCT6	22.1502	5.099	.725	.861

Appendix M. The Output of Multiple Regression Using SPSS Version 23

Mean of School Mission (MSM)

Descriptives

MSM								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Tolesap	180	4.2700	.56429	.04206	4.1870	4.3530	1.80	5.00
Central Plain	253	4.1502	.58463	.03676	4.0778	4.2226	1.80	5.00
Coastal and Sea	186	4.3656	.48557	.03560	4.2953	4.4358	2.00	5.00
Total	619	4.2498	.55714	.02239	4.2058	4.2937	1.80	5.00

Post Hoc Tests

Multiple Comparisons

Dependent Variable: MSM

Bonferroni

(I) Region	(J) Region	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Tolesap	Central Plain	.11980	.05369	.078	-.0091	.2487
	Coastal and Sea	-.09559	.05757	.292	-.2338	.0426
Central Plain	Tolesap	-.11980	.05369	.078	-.2487	.0091
	Coastal and Sea	-.21539*	.05318	.000	-.3431	-.0877
Coastal and Sea	Tolesap	.09559	.05757	.292	-.0426	.2338
	Central Plain	.21539*	.05318	.000	.0877	.3431

*. The mean difference is significant at the 0.05 level.

Mean of Positive Learning Climate (MPLC)

Post Hoc Tests

Multiple Comparisons

Dependent Variable: MPLC

Bonferroni

(I) Region	(J) Region	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Tolesap	Central Plain	.04951	.06905	1.000	-.1162	.2153
	Coastal and Sea	-.09967	.07404	.536	-.2774	.0781
Central Plain	Tolesap	-.04951	.06905	1.000	-.2153	.1162
	Coastal and Sea	-.14918	.06840	.089	-.3134	.0150
Coastal and Sea	Tolesap	.09967	.07404	.536	-.0781	.2774
	Central Plain	.14918	.06840	.089	-.0150	.3134

Mean of Group Competence (MGC)

Post Hoc Tests

Multiple Comparisons

Dependent Variable: MGC

Bonferroni

(I) Region	(J) Region	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Tolesap	Central Plain	.05542	.04802	.747	-.0598	.1707
	Coastal and Sea	.08479	.05149	.300	-.0388	.2084
Central Plain	Tolesap	-.05542	.04802	.747	-.1707	.0598
	Coastal and Sea	.02937	.04756	1.000	-.0848	.1435
Coastal and Sea	Tolesap	-.08479	.05149	.300	-.2084	.0388
	Central Plain	-.02937	.04756	1.000	-.1435	.0848

Descriptives

MGC

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Tolesap	180	3.8877	.46847	.03492	3.8188	3.9566	2.44	5.00
Central Plain	253	3.8322	.54600	.03433	3.7646	3.8998	2.22	5.00
Coastal and Sea	186	3.8029	.43477	.03188	3.7400	3.8658	2.67	5.00
Total	619	3.8395	.49276	.01981	3.8006	3.8784	2.22	5.00

Appendix N. Multiple Regression

The Effects of Demographic Information and SM/ PLC on TCT

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.135 ^a	.018	.013	.45124
2	.461 ^b	.212	.206	.40486

a. Predictors: (Constant), Exp, Edu, Age

b. Predictors: (Constant), Exp, Edu, Age, MSM, MPLC

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.196	.099		42.499	.000
	Age	.063	.039	.107	1.601	.110
	Edu	-.007	.019	-.014	-.347	.729
	Exp	.011	.025	.031	.460	.645
2	(Constant)	2.718	.151		17.970	.000
	Age	.060	.035	.102	1.710	.088
	Edu	.007	.018	.014	.380	.704
	Exp	.001	.022	.002	.030	.976
	MSM	.226	.039	.277	5.773	.000
	MPLC	.133	.031	.207	4.292	.000

a. Dependent Variable: MTCT

The Effects of School Mission and Positive Learning Climate on TCO

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.527 ^a	.278	.276	.41665

a. Predictors: (Constant), MPLC, MSM

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	2.479	.130	19.125	.000
	MSM	.276	.040	.314	.000
	MPLC	.182	.032	.264	.000

a. Dependent Variable: MTCO

The Effects of School Mission and Positive Learning Climate on GC

Appendix O. Exploratory Factor Analysis of Validated Variables

Rotated Component Matrix^a

	Component				
	1	2	3	4	5
TCO3	.768				
TCO4	.768				
TCO5	.754				
TCO7	.741				
TCO2	.703				
TCO6	.698				
TCO1	.542				
GC6		.698			
GC4		.696			
GC2		.673			
GC7		.647			
GC1		.643			
GC8		.639			
GC5		.638			
GC3		.603			
GC9		.576			
PLC3			.754		
PLC2			.733		
PLC1			.732		
PLC4			.729		
PLC5			.684		
PLC6			.643		
TCT5				.780	
TCT3				.761	
TCT6				.730	
TCT4				.711	
TCT1				.657	

TCT2				.618	
SM2					.744
SM1					.726
SM3					.704
SM4					.641
SM5					.597

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Appendix P. Structural Equation Modeling (SEM) Fit Indices

Chi-Square Test of Model Fit

Value	1129.528
Degrees of Freedom	439
P-Value	0.0000

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.050	
90 Percent C.I.	0.047	0.054
Probability RMSEA <= .05	0.420	

CFI/TLI

CFI	0.937
TLI	0.924

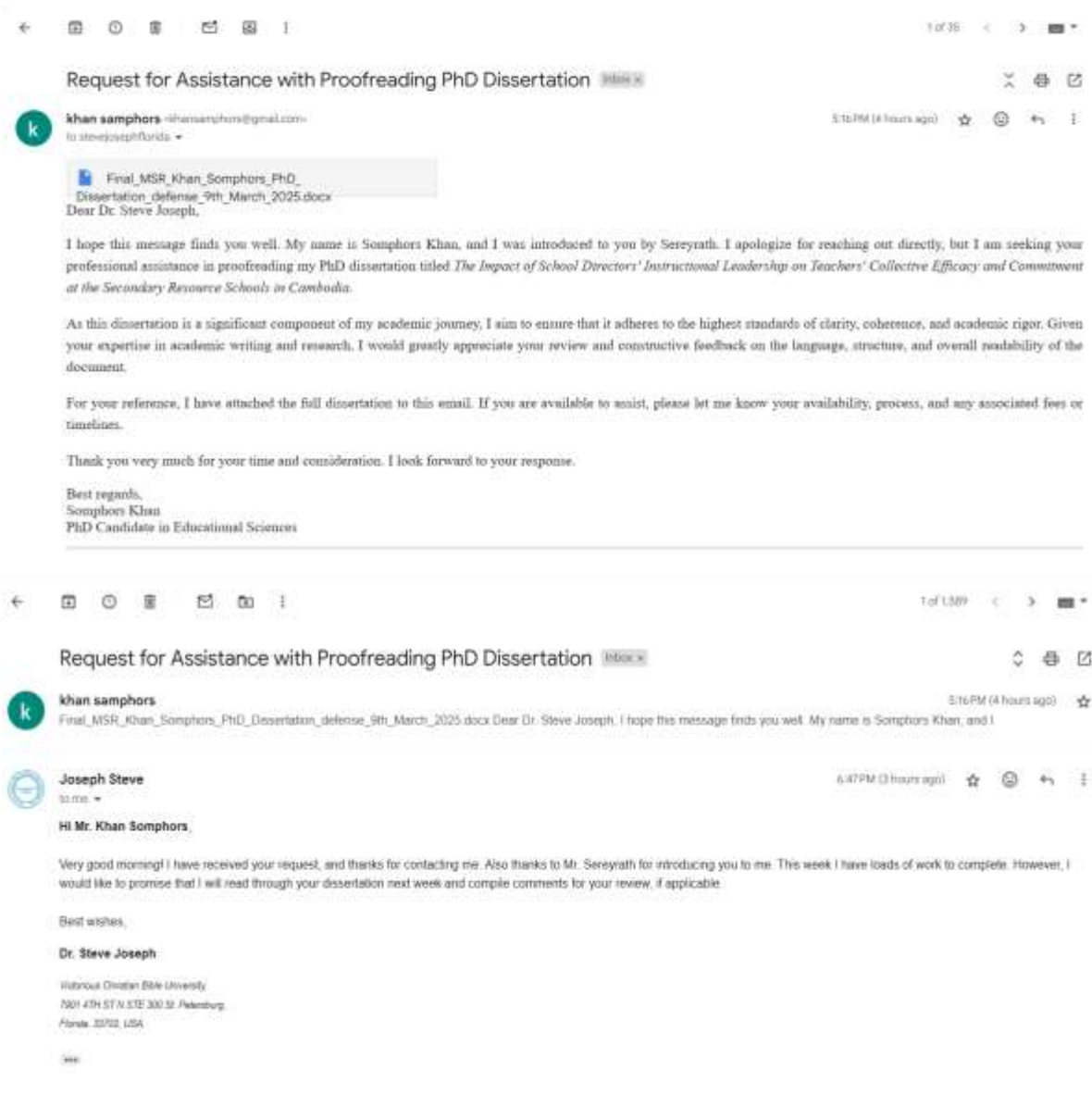
Chi-Square Test of Model Fit for the Baseline Model

Value	11450.019
Degrees of Freedom	528
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.060
-------	-------

Appendix Q. Evidence for Professional Proof Reading





khan samphors

Mar 12, 2025, 10:14 PM (5 days ago)



Dear Dr. Joseph, Good Evening, and thank you very much for your prompt response. I truly appreciate your taking time to review my dissertation. I truly consider



Joseph Steve

to me

11:41 AM (9 hours ago)



Subject: Re: Request for Proofreading Assistance

Dear Mr. Somphors Khan,

Thank you for reaching out, and I appreciate the opportunity to review your dissertation.

I have gone through your work, and overall, it is well-structured, clear, and meets the standards of academic writing. Based on my review, I believe your dissertation is ready for submission for the final defense. However, I recommend a final check on the references to ensure consistency in formatting and accuracy.

If you need any further assistance, please feel free to let me know. Wishing you all the best for your final defense!

Kind Regards,

Dr. Steve Joseph

Victorious Christian Bible University
7901 4TH ST N, STE 300 St. Petersburg
Florida, 33702, USA

THE UNIVERSITY OF CAMBODIA

College of Education (CoE)

Schedule for Pre-Defense of Doctoral Dissertation

January 31, 2025

(Room: Vietnam Hall)

Date & Time	PhD Candidates & Dissertation's Topic:	Assessment Committees
January 31, 2025 (8:00AM-10:00AM)	1. Mr. Be Borey Dissertation's Topic: - Teachers' perception of their readiness in online teaching and learning in higher education in Cambodia.	1. Dr. Y Ratana (Chief of Committee) 2. Dr. Mok Sarom (1 st main assessor) 3. Dr. Sam Rany (2 nd main assessor) 4. Dr. Chhourn Bun Hoeun (3 rd main assessor) 5. Dr. Phon Sophal (Assessor member) 6. Dr. Kep Bunly (Assessor member) 7. Dr. Pok Visalboth (Assessor member) 8. Dr. Loch Ratana (Note-taker)
January 31, 2025 (10:00AM-12:00PM)	2. Khan Somphors Dissertation's Topic: -The Impact of School directors' Instructional Leadership on Teachers' Collective Efficacy and Commitment at the Secondary Resource Schools in Cambodia.	1. Dr. Y Ratana (Chief of Committee) 2. Dr. Phon Sophal (1 st main assessor) 3. Dr. Chhourn Bun Hoeun (2 nd main assessor) 4. Dr. Mam Socheath (3 rd main assessor) 5. Dr. Mok Sarom (Assessor member) 6. Dr. Sam Rany (Assessor member) 7. Dr. Pok Visalboth (Assessor member) 8. Dr. Loch Ratana (Note-taker)
January 31, 2025 (2:00PM-04:00PM)	9. Mr. Em Sereyrath Dissertation's Topic: - Effectiveness of School Directors' Transformational Leadership on Teacher's Self-Efficacy and Job Performance in Cambodia.	1. Dr. Y Ratana (Chief of Committee) 2. Dr. Phon Sophal (1 st main assessor) 3. Dr. Chhourn Bun Hoeun (2nd main assessor) 4. Dr. Dr. Vong Sam Aun (3 rd main assessor) 5. Dr. Mok Sarom (Assessor member) 6. Dr. Sam Rany (Assessor member) 7. Dr. Pok Visalboth (Assessor member) 8. Dr. Loch Ratana (Note-taker)

Appendix S. Committee Members' Comments during Pre-trial Defense

Kingdom of Cambodia
Nation Religion King



The University of Cambodia

College of Education

Report on Evaluation and Corrections of the Pre-Trial Defense

Candidate's Name: Khan Somphors

College: College of Education

Specialization: Educational Science

Dissertation Title: The Impact of School Directors' Instructional Leadership on Teachers' Collective Efficacy and Commitment at the Secondary Resource Schools in Cambodia

Table1. Evaluation and Corrections Summary

Committee Member	Comments/Suggestions	Corrections Made	Remarks
Dr. Y Ratana	The dissertation needs improvements in language, formatting, and structure. The literature review should include a section on Cambodia and be divided into theory and context. Chapter summaries, socio-economic context, and clearer methodology are needed. Relevant Cambodian sources should be added and discussed with supervisors for further revision.	Revised language and structure, added section on Cambodia, divided literature review, added chapter summaries, socio-economic context, and clearer methodology.	Completed
Dr. Phon Sophal	The dissertation should narrow its objectives to clear points and revise Chapter 3 to focus on	Narrowed objectives to three points, revised Chapter 3, clarified conceptual framework, refined	Completed

	research methods, moving excess content to Chapter 2. Clarify the origin of the conceptual framework, refine CFA and SEM analysis, and add context on instructional leadership in Cambodia. Include qualitative data from 9–12 participants and reduce plagiarism to below 20% through paraphrasing.	CFA/SEM analysis, added Cambodian context, added qualitative data from 9–12 participants, and reduced plagiarism.	
Dr. Chhoun Bun Hoeun,	The dissertation is well-structured and follows the UC format, showing strong effort and advisor support. To improve, add an introduction to Chapter 1, clarify citations, and define key terms using relevant literature. Include a methodology summary table, ensure APA formatting for tables and figures, move repeated validation details to the appendix, and organize findings clearly around the research questions.	Added introduction to Chapter 1, clarified citations, defined key terms, included methodology summary table, ensured APA format for tables and figures, moved validation to appendix, and organized findings.	Completed
Dr. Mam Socheat	This is a well-written and detailed dissertation, but several areas need refinement. Clarify the impact of the study on policy and guidelines, and clearly link the problem statement to the research objectives. Define key terms contextually and operationally. In the literature review, shorten paragraphs and add personal analysis, with emphasis on the Cambodian context. Justify the selection of resource	Clarified study's impact on policy, linked problem statement to objectives, defined key terms contextually, shortened paragraphs in literature review, justified resource school selection, and aligned findings with research questions.	Completed

	schools and explain the criteria for sample selection and tools used. Structure the findings clearly by research question, and ensure alignment between research questions, findings, discussion, and recommendations.		
Dr. Mok Sarom	In addition to the previous suggestions, please ensure that the findings are clearly presented based on the research questions (RQs). The discussion should directly refer to the findings for each RQ. Additionally, provide detailed recommendations for future practices based on the research outcomes.	Presented findings clearly by research question, discussed findings in relation to each RQ, and included detailed recommendations for future practices.	Completed
Dr. Sam Rany	He is the second supervisor of this PhD candidate and has agreed with all the recommendations made by the pre-defense committee. At the same time, his recommendations, along with the file, have already been sent to this candidate.	All relevant points from Dr. Rany's suggestions were integrated as part of the overall corrections.	Completed
Dr. Pok Visalboth	Ensure proper use of spaces and review each paragraph for relevance to the research aspects. Focus on presenting your own perspective, supporting it with references, and avoid excessive citations. Summarize only the main points, eliminating unnecessary details or unrelated content. Check sentence structure and	Reviewed spaces and paragraph relevance, presented own perspective, summarized main points, eliminated irrelevant content, improved sentence structure and grammar, and incorporated all committee feedback.	Completed

	grammar, and incorporate all committee feedback to improve the dissertation. Remember, Ph.D. research should reflect original thought and your unique perspectives.		
Dr.Loch Ratana	No specific comments, but noted all other members' feedback.	No direct revision required from this evaluator.	Not Applicable

Prepared by the candidate
April 29, 2025



KHAN Somphors

Appendix T. Committee Members and Allocated Time for Final Defense



ព្រះរាជាណាចក្រកម្ពុជា ជាតិ សាសនា ព្រះមហាក្សត្រ

សាកលវិទ្យាល័យកម្ពុជា	
ចូល	លេខ: ១៨៩/២០១៨ សក/បច
	ថ្ងៃ: ១១ កក្កដា ២០១៨
	ម៉ោង: ០៨:៣០ ព្រឹក
	មកពី: ៣០៤៤
	បញ្ជូន: លោកជំទាវ

ក្រសួងអប់រំ យុវជន និងកីឡា

លេខ: ២៩២ អយក.១៩៩

លិខិតឧទ្ទេសនាម

យោង: - លិខិតលេខ ២៩២ អយក ១៩៩ ចុះថ្ងៃទី ២៧ ខែ កក្កដា ឆ្នាំ ២០១៨ របស់ក្រសួងអប់រំ យុវជន និងកីឡា។
- លិខិតលេខ ២៤០/២៥ សក/បច ចុះថ្ងៃទី ២ ខែ ឧសភា ឆ្នាំ ២០១៥ របស់សាកលវិទ្យាល័យកម្ពុជា។
លោក លោកស្រី ដូចមានរាយនាមខាងក្រោម ត្រូវបានចាត់តាំងជាគណៈកម្មការវាយតម្លៃការការពារនិក្ខេបបទបញ្ចប់ការសិក្សារបស់និស្សិតថ្នាក់បណ្ឌិត ជំនាន់ទី ១០ ជំនាញវិទ្យាសាស្ត្រអប់រំ នៃសាកលវិទ្យាល័យកម្ពុជា។

ល.រ	គោត្តនាម-នាម	សញ្ញាបត្រ	មុខងារ	ឯកទេស	តួនាទីគណៈកម្មការ
១	លោក អ៊ុំ តេនា	បណ្ឌិត	គ្រូ	សង្គមវិទ្យា	ប្រធាន
២	លោក ជុន សុផល	បណ្ឌិត	គ្រូ	ការបង្រៀននិងបច្ចេកវិទ្យា	គ្រូវាយតម្លៃទី១
៣	លោក ឈួន ប៊ុនហឿន	បណ្ឌិត	គ្រូ	រដ្ឋបាលអប់រំ	គ្រូវាយតម្លៃទី២
៤	លោក ម៉ម សុជាតិ	បណ្ឌិត	គ្រូ	អប់រំអភិវឌ្ឍន៍	គ្រូវាយតម្លៃទី៣
៥	លោក ម៉ុក សារ៉ែម	បណ្ឌិត	គ្រូ	គ្រប់គ្រងអប់រំ ភាសាវិទ្យាអនុវត្តន៍ អភិវឌ្ឍន៍អន្តរជាតិ	សមាជិក
៦	លោក សំ រ៉ានី	បណ្ឌិត	គ្រូ	អប់រំ	សមាជិក
៧	លោក ប៉ុក វិសាលបុត្ត	បណ្ឌិត	គ្រូ	សង្គមទំនើបនិងវប្បធម៌	សមាជិក

- បេក្ខជនបណ្ឌិត : ខាង សំភាស ភេទ ប្រុស
- ប្រធានបទ : ផលជះការជាអ្នកដឹកនាំបច្ចេកទេសរបស់នាយកសាលាលើការជឿជាក់និងការប្តេជ្ញាចិត្តរបស់គ្រូបង្រៀនសាលាមធ្យមសិក្សាធនធាននៅកម្ពុជា
- កាលបរិច្ឆេទ : ថ្ងៃទី ០៩ ខែ ឧសភា ឆ្នាំ ២០១៨ ម៉ោង: ១១:៣០ ព្រឹក
- ជំនាញ : វិទ្យាសាស្ត្រអប់រំ
- គ្រូណែនាំ : លោកបណ្ឌិត ម៉ុក សារ៉ែម និង លោកបណ្ឌិត សំ រ៉ានី
- លេខាគត់ត្រា : លោកបណ្ឌិត ឡូច តេនា

កន្លែងទទួល:

- អគ្គនាយកដ្ឋានឧត្តមសិក្សា
- អគ្គលេខាធិការដ្ឋាន
- ឧទ្ធរណ៍យកឧត្តមបណ្ឌិតសភាចារ្យឧបនាយករដ្ឋមន្ត្រី
"ដើម្បីជូនជ្រាបជាព័ត៌មាន"
- សាកលវិទ្យាល័យកម្ពុជា
- សាមីជន "ដើម្បីអនុវត្ត"
- កាលប្បវត្តិ
- ឯកសារ នាយកដ្ឋានស្រាវជ្រាវនិងស្រាវជ្រាវ

ថ្ងៃ ២៩ ខែ កក្កដា ឆ្នាំ ២០១៨
អគ្គនាយករដ្ឋមន្ត្រី
រដ្ឋមន្ត្រីក្រសួងអប់រំ យុវជន និងកីឡា

បណ្ឌិតសភាចារ្យ ហង់ ជួន ណារ៉ុន

