



SCHOOL CULTURE AND TEACHING ENGAGEMENT ON TEACHER INSTRUCTIONAL LEADERSHIP IN LAST MILE SCHOOLS

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ABSTRACT

This research investigates the impact of school culture and teaching engagement on instructional leadership among teachers in last mile schools within the Division of Bukidnon, Philippines. Employing a quantitative research design, the study collected data from teachers to assess their perceptions of collaborative leadership, professional development, collegial support, and instructional involvement. Findings reveal a highly positive school culture, with collaborative leadership ($M = 4.61$), teachers' collaboration ($M = 4.73$), and professional development ($M = 4.61$) rated as very evident. Teaching engagement also reflected high involvement, particularly in classroom interaction ($M = 4.99$), instructional design ($M = 4.91$), and job satisfaction ($M = 4.83$). Correlation analysis showed strong positive relationships between instructional leadership and both school culture and teaching engagement, with collaborative leadership ($r = .985$) and work-life balance ($r = .983$) emerging as key factors. Regression analysis further identified professional development and collaborative leadership as significant predictors of instructional leadership, underscoring the importance of supportive environments that encourage continuous learning and shared goals.

This study highlights the vital role of a strong school culture and engaged teaching workforce in enhancing instructional leadership. The results offer valuable implications for school leaders and policymakers in promoting teacher-led improvement, particularly in resource-constrained last mile school contexts, ultimately contributing to better student outcomes.

Keywords: school culture, teaching engagement, and instructional leadership,

INTRODUCTION

Background of the Study

Quality instruction is the cornerstone of effective education, serving as a catalyst for individual growth and societal progress. However, sustaining and enhancing instructional quality remains a persistent challenge, particularly in last mile schools' institutions that often face geographical isolation, resource limitations, and systemic barriers. In such settings, teacher engagement plays a vital role in ensuring instructional effectiveness and student success. Engaged teachers demonstrate commitment, creativity, and resilience, fostering a dynamic learning environment despite existing constraints.

Many educational systems face challenges in fostering strong instructional leadership. Issues such as limited professional development opportunities, low teacher autonomy, and insufficient resources are prevalent, particularly in low-income and remote educational settings. In some countries, systemic barriers such as rigid curriculum frameworks, lack of support for teacher collaboration, and high teacher turnover rates hinder the development of instructional leadership among educators.

In countries like the Philippines, where this study is focused, educational policies often emphasize top-down leadership models, which can limit the autonomy of individual teachers in shaping classroom practices. Moreover, the Department of Education (DepEd) faces significant challenges in supporting last mile schools those located in geographically isolated or underserved areas due to limited access to resources, inadequate professional development programs, and insufficient mentoring opportunities. These barriers hinder the capacity of teachers to engage in instructional leadership, thereby affecting the overall quality of education.

Locally, in the context of DepEd Bukidnon and other last mile schools in the Philippines, teachers often experience challenges such as lack of instructional resources, insufficient administrative support, and limited access to professional development. Teachers in these areas must navigate these difficulties while simultaneously addressing the evolving needs of students, many of whom face barriers to learning such as poverty, language differences, and limited parental involvement. In such environments, a positive school culture and teacher engagement become essential in fostering the leadership necessary to improve instructional quality and student outcomes.

A school's culture plays a pivotal role in shaping teachers' performance, engagement, and instructional leadership. A positive school culture, characterized by shared norms, values, and collaboration, fosters teacher motivation, enhances instructional effectiveness, and improves overall school performance (Dimmock et al., 2021; Dogan, 2017). In contrast, a weak or negative culture can hinder teacher engagement and diminish leadership capacity. For educators in last mile schools, where resources and support are limited, a strong school culture can serve as a motivating force that encourages engagement and strengthens instructional leadership. Research has shown that schools with supportive environments, led by administrators who promote collaboration, professional development, and collegial support, tend to have more engaged and satisfied teachers, which translates into better student outcomes (Arifin et al., 2018; Ismail et al., 2022).

Despite its recognized importance, instructional leadership remains a challenge globally, often hindered by its narrow interpretation and the overwhelming responsibilities of school administrators. Effective instructional leadership requires careful teacher selection, continuous professional development, and the creation of a positive and collaborative learning environment. Balena (2013) emphasizes that instructional leadership is a collaborative practice grounded in mutual respect and shared decision-making. School administrators must set clear directions, foster collegiality, and use data-driven approaches to improve instructional practices and student outcomes.

This research will examine the influence school culture and teaching engagement on teacher instructional leadership in last mile schools in the Division of Bukidnon for the academic year 2024-2025. Consequently, this study aimed to contribute significantly to the existing body of knowledge in educational research. It also sought to provide valuable information and insights that can facilitate the formulation of recommendations for educational policymakers, administrators, and practitioners. The ultimate goal of these recommendations is to enhance teacher engagement and, in turn, improve student outcomes.

Statement of the Problem

This study aims to examine the influence of school culture and teaching engagement on teacher instructional leadership in last mile schools. It seeks to determine how these factors interact and contribute to the effectiveness of instructional leadership in remote educational settings. Specifically, the study aims to answer the following questions:

1. What is the level of school culture among teachers in last mile schools in terms of;
 - a.) collaborative leadership;
 - b.) teacher collaboration;
 - c.) professional development;
 - d.) unity of purpose,
 - e.) collegial support,
 - f.) learning support
2. What is the level of teaching engagement among teachers in last mile schools in terms of;
 - a.) job satisfaction,
 - b.) instructional design
 - c.) classroom interaction,
 - d.) work-life balance

3. What is the level of instructional leadership among teachers in last mile schools based on;
 - a.) resource provision,
 - b.) instructional resources
 - c.) communication
4. Is there a significant relationship between instructional leadership in last mile schools?
 - a. School culture
 - b. Teaching engagement
5. What is the best predictor of instructional leadership in last mile schools?

Objectives of the Study

This study will examine the effectivity of School Culture and Teaching Engagement on Teachers Instructional Leadership in Last Mile Schools. Specifically, the paper aims to:

1. ascertain the level of school culture in last mile schools in terms of:
 - a.) collaborative leadership;
 - b.) teacher collaboration;
 - c.) professional development;
 - d). unity of purpose,
 - e.) collegial support,
 - f.) learning support
2. asses the level of teaching engagement among teachers in last mile schools in terms of;
 - a.) job satisfaction,
 - b. instructional design
 - c.) classroom interaction,
 - d.) work-life balance
3. describe the level of instructional leadership among teachers in last mile schools based on;
 - a.) resource provision,
 - b.) instructional resources

c.) communication

4. correlate instructional leadership in last mile school;

a. school culture

b. teaching engagement

5. identify the most significant predictor(s) of teacher instructional leadership in last mile schools.

Significance of the Study

This study is significant for its potential to positively impact various stakeholders committed to enhancing teacher effectiveness and the overall quality of education, particularly in last mile schools.

To the teachers, teachers in last mile schools are expected to benefit directly from its findings. By exploring the relationship between school culture, teaching engagement, and instructional leadership, the study can offer valuable insights into strategies that support teachers' professional development and job fulfillment. Understanding these dynamics may lead to practical, evidence-based interventions that enhance teaching performance, increase motivation, and reduce attrition—thereby improving learning experiences for students.

To the Department of Education (DepEd), DepEd can use the study's findings to inform initiatives that boost teacher instructional leadership. By recognizing how school culture and teaching engagement affect teacher performance, DepEd can design and implement more responsive and targeted professional development programs, create supportive work environments, and establish policies that strengthen the instructional capacity of teachers in underserved areas.

To educational policymakers and school administrators, the study provides valuable guidance for decision-makers in developing effective educational frameworks. Policymakers and administrators can utilize the findings to integrate strategies that cultivate a positive school culture and promote active teaching engagement. These strategies are crucial in nurturing instructional leadership, especially in last mile schools, where support systems may be limited. Well-informed policies can help build a resilient educational environment that benefits both educators and learners.

To students, parents, and the education community, the quality of instruction students receive is closely linked to their teachers' sense of engagement and the school's overall culture. By fostering conditions that empower teachers to lead instructionally, students in last mile schools can enjoy more enriching and effective learning experiences. Parents will also gain assurance that their children are being guided by motivated and capable educators, strengthening trust in the education system and reinforcing school-community partnerships.

To future researchers, this study lays a foundational framework for further exploration into instructional leadership, especially within the context of geographically isolated and resource-constrained schools. Future scholars may use this research to delve deeper into the long-term effects of school culture and engagement on

teacher leadership or to examine the impact of specific professional development initiatives. It contributes to the broader understanding of educational leadership in the Philippine setting and offers a meaningful reference for studies seeking to improve educational equity in last mile contexts.

Scope and Delimitation

This study investigates the influence of school culture and teaching engagement on the instructional leadership of teachers assigned to last mile schools within the Division of Bukidnon, Philippines. Adopting a quantitative research approach, the study utilizes survey instruments to gather data from a representative sample of teachers working in geographically isolated and underserved school communities. The scope encompasses an evaluation of key dimensions of school culture such as collaborative leadership, teacher collaboration as well as levels of teaching engagement, including job satisfaction, classroom interaction, and work balance. The study seeks to determine the extent to which these factors contribute to or influence the development of instructional leadership capabilities among teachers in these remote settings.

The research is limited to public school teachers in last mile schools within the Division of Bukidnon and does not cover other school types or divisions in the Philippines. Consequently, the results may not be broadly generalizable to teachers in urban or more resource-rich educational contexts. The study relies on self-reported data, which, while essential for capturing teachers' perceptions and experiences, may introduce certain subjective biases. Additionally, the study is focused purely on quantitative measures and statistical analysis; it does not include qualitative methods such as interviews or classroom observations. External variables like socioeconomic status, community involvement, or broader systemic challenges are beyond the scope of this research. The study's primary aim is to isolate and examine the relationship between school culture, teaching engagement, and instructional leadership within the context of last mile schools in the Division of Bukidnon.

Definition of Terms

The following terms are, at this moment, defined theoretically or operationally as used in the study.

Classroom interaction refers to the dynamic exchange of communication, ideas, and participation between teachers and students, as well as among students, during the teaching and learning process.

Collaborative leadership refers to a leadership approach that fosters teamwork, shared decision-making, and collective problem-solving among teachers, administrators, and other stakeholders.

Colleague support refers to the extent to which teachers and school staff provide mutual encouragement, assistance, and professional collaboration to enhance teaching effectiveness.

Instructional design refers to the systematic process of planning, developing, and organizing instructional materials and learning experiences to help students achieve specific learning outcomes effectively and efficiently.

Job satisfaction refers to the level of contentment, fulfillment, or positive emotional state a teacher experiences as a result of their work, roles, and environment in the school setting.

Last-mile schools refer to the remote and underserved schools with limited access to educational resources, infrastructure, and professional development opportunities. These schools often face geographical and logistical challenges. Learning support refers to the strategies, resources, and assistance provided to both teachers and students to enhance the teaching-learning process and ensure academic success especially for those who may need additional help due to learning challenges, limited resources, or diverse needs.

Professional development refers to training programs, workshops, mentoring, and other learning opportunities that help teachers improve their instructional skills and leadership capabilities.

School culture refers to the shared values, beliefs, practices, and norms that shape the learning environment in last-mile schools. It includes factors such as collaboration, professional development, and leadership support.

Teacher collaboration is the practice of teachers working together to plan lessons, share resources, and support each other's professional growth, fostering a sense of community.

Teacher instructional Leadership refers the ability of teachers to guide and influence instructional practices, mentor colleagues, and contribute to curriculum development while maintaining effective classroom management.

Teaching engagement refers the level of commitment, motivation, and involvement teachers exhibit in their instructional duties. It encompasses job satisfaction, classroom interaction, and work-life balance.

Unity of purpose refers to the collective commitment of staff towards shared goals and visions for student success, creating a cohesive educational environment.

Work-life balance refers to the ability of teachers to manage their professional responsibilities while maintaining personal well-being and preventing burnout.

THEORETICAL FRAMEWORK

Review of Related Literature

This chapter reviews related literature, articles, and studies relevant to the present investigation. It also includes the conceptual framework, the research paradigm, and the hypothesis of the study to sum up the ideas and concepts that helped the researcher conceptualize the study variables that have a significant bearing on the research.

School Culture

School culture plays a significant role in shaping teachers' instructional leadership, particularly in last-mile schools, where challenges such as resource limitations, geographic isolation, and teacher retention issues persist. According to Wang and Hall (2019), a supportive school culture promotes collective teacher efficacy and shared

leadership, which are essential for fostering instructional leadership in challenging contexts. Johnson, Reinhorn, and Simon (2020) highlight that when teachers operate within a culture of collaboration, trust, and high expectations, their capacity to lead instructionally increases. Similarly, Lopez and Torres (2022) argue that professional learning communities embedded in a strong school culture encourage reflective practice and sustained leadership among teachers.

Collaborative Leadership

Chamberlin, Nahrgang, Sessions, and de Jong (2024) examined various configurations of shared leadership in work and academic teams, revealing that collaborative leadership structures significantly enhance team performance and cohesion. In the context of higher education, Shaikh, Lämsä, and Heikkinen (2023) explored how collaborative leadership operates within Pakistani universities, emphasizing that sociocultural factors play a vital role in shaping leadership dynamics. Their findings suggest that even in traditionally hierarchical institutions, collaborative leadership promotes inclusivity, shared responsibility, and improved decision-making. Similarly, Wilson, Campbell, and Messenheimer (2019) underscored the benefits of collaborative leadership in academic departments, noting that shared governance and mutual respect among educators lead to more democratic and effective institutional management.

Professional Development

Professional development plays a critical role in enhancing teacher capacity, instructional leadership, and student outcomes, particularly in challenging contexts such as last mile schools. Darling-Hammond, Hyler, and Gardner (2017), effective professional development is ongoing, collaborative, and directly connected to teachers' classroom practice. Building on this, Opfer, Kaufman, and Thompson (2019) emphasize the importance of job-embedded learning opportunities that empower teachers to reflect on and refine their instructional strategies. More recently, Avalos-Bevan, Lázaro, and Navarro (2021) explored how sustained professional learning communities (PLCs) contribute to long-term teacher growth, finding that collegial dialogue and shared inquiry enhance both teacher motivation and instructional leadership.

Unity of Purpose

Leithwood, Harris, and Hopkins (2020), unity of purpose promotes alignment between school goals and instructional practices, strengthening teacher commitment and collective responsibility. Similarly, Hord, Rutherford, Huling-Austin, and Hall (2018) emphasize that schools with a unified mission foster trust and cooperation among teachers, enabling them to act as instructional leaders and problem solvers. In a related study, Katzenmeyer, Moller, and York-Barr (2019) assert that when teachers are united by shared values and goals, they are more empowered to influence school direction and student outcomes.

Collegial Support

Vangrieken, Meredith, Packer, and Kyndt (2017) suggest that such collegial relationships foster trust and psychological safety, empowering teachers to initiate and lead classroom innovations. Similarly, Kelchtermans,

Ballet, and Piot (2019) emphasize that peer support bolsters teacher resilience, job satisfaction, and a propensity to partake in school-wide leadership roles. Further reinforcing this perspective, Liu and Hallinger (2018) found that instructional leadership significantly influences teacher professional learning through the mediation of collective teacher efficacy and commitment, highlighting the role of supportive peer interactions in professional development.

Learning Support

Learning support has been consistently identified as a key contributor to student achievement and educational improvement. In a study by Haw, King, and Trinidad (2021), findings from the 2018 Programme for International Student Assessment (PISA) revealed that need-supportive teaching—approaches that address students' psychological needs—is positively linked to improved reading achievement in the Philippines. This underscores the importance of responsive and student-centered teaching strategies in enhancing academic outcomes. Similarly, Havik and Ertesvåg (2018) conducted a longitudinal study that traced students' perceptions of instructional support over time. They found that students who consistently experienced high levels of instructional support demonstrated better engagement and performance, emphasizing the value of sustained teacher guidance. Complementing these findings, White, Van Dusen, and Roualdes (2016) explored the use of Learning Assistants in college physics courses and concluded that peer-led support structures significantly boosted student learning outcomes in STEM disciplines.

Teaching Engagement

In a study conducted in the Philippines, Zamora, Edig, and Decano (2023) found that teacher engagement significantly correlates with innovative work behavior, which in turn influences students' learning outcomes in mathematics. This suggests that engaged teachers are more likely to adopt innovative practices that benefit student performance. Similarly, Rahayu, Aulia, Susanti, Alvines, and Faiza (2024) explored teacher attitudes in inclusive primary schools in Indonesia, revealing that teacher engagement and self-efficacy play crucial roles in shaping positive attitudes towards inclusive education, thereby facilitating better educational experiences for students with special needs. Furthermore, Fütterer, Richter, and Richter (2024) examined the interplay between online professional development quality and teacher motivation in Germany, highlighting that high-quality professional development programs enhance teacher engagement by fostering motivation and commitment to continuous learning.

Job Satisfaction

Harrison, King, and Wang (2023), analysis of data from the 2018 Teaching and Learning International Survey (TALIS) revealed that higher job satisfaction among teachers is positively associated with improved instructional clarity and cognitive activation, with this relationship partially mediated by strong teacher–student relationships. Similarly, Niu, Fan, Wang, and Chen (2023) conducted a multi-level analysis across Japan and South Korea, identifying that both teacher-level factors (such as self-efficacy and professional development) and school-level factors (including school climate and support for special needs students) significantly impact job satisfaction. In

the Philippine context, Anog, de Vera, and Peteros (2023) examined private school teachers and found that job satisfaction is closely linked to school commitment and retention, with working conditions, administrative support, and opportunities for professional growth being key contributors.

Instructional Design

Several influential studies contributed to the evolving field of instructional design. Anderson, Dron, and Siemens (2019) explored how instructional design principles are integrated into Massive Open Online Courses (MOOCs), highlighting best practices such as scaffolded content delivery, interactive components, and learner-centered pacing. Similarly, Bower, Lee, and Dalgarno (2020) investigated the impact of instructional design strategies in blended learning environments, emphasizing the importance of aligning learning outcomes with digital tools and assessment methods to enhance learner engagement. In another study, Merrill, Drake, Lacy, and Pratt (2021) revisited foundational instructional design theories, such as the First Principles of Instruction, to examine their applicability in current digital learning settings. These studies collectively underscore the need for systematic and adaptive design frameworks that respond to technological changes and diverse learner needs, ensuring effective and meaningful educational experiences. Additionally, MacLellan et al. (2024) explored the use of personalized computational models to evaluate alternative training interventions. Their research demonstrated how these models can support instructional designers in making informed decisions about effective instructional strategies, thereby optimizing learning outcomes.

Classroom Interaction

Toscu (2023) examined interaction patterns in online English as a Foreign Language (EFL) classes and found that teacher-student interactions were dominant, while student-student exchanges and group activities were limited—highlighting the need for more inclusive interaction strategies in virtual settings. Similarly, Vattøy and Gamlem (2020) analyzed teacher-student feedback in EFL classrooms using the CLASS-S framework, revealing moderate emotional support and high classroom organization but insufficient instructional dialogue, stressing the importance of meaningful interaction for self-regulated learning. Complementing these findings, Balaobao et al. (2024) utilized Flanders' Interaction Analysis and the Initiation-Response-Feedback (IRF) model to explore communication patterns in English-medium classrooms, demonstrating how structured frameworks can help educators foster more dynamic and effective instructional exchanges. Together, these studies reinforce the value of intentional and well-supported classroom interaction across diverse educational contexts.

Work-Life Balance

Recent scholarly research has highlighted the critical role of work-life balance in improving employee well-being and organizational performance. Susanto et al. (2022), in a study published in *Frontiers in Psychology*, examined employees of small and medium enterprises (SMEs) and found that work-life balance significantly influences job satisfaction and performance, particularly when supervisors provide family-supportive behaviors. Similarly, Wani (2023) explored the higher education sector in India and revealed that supervisor support plays a crucial role in enhancing employees' work-life balance and overall life satisfaction. Complementing these findings, Opatrná and

Prochazka (2023), through a scoping review in *Employee Relations*, investigated the link between work-life balance policies and financial performance, noting a positive though modest relationship. They emphasized that flexible working hours and job-sharing arrangements were particularly effective in supporting both employee needs and organizational goals.

Instructional Leadership

Widiyan, Sirisooksilp, and Narot (2020) developed an Instructional Leadership Scale for elementary school principals in Indonesia. Their study, which involved 238 principals, demonstrated the scale's reliability (Cronbach's $\alpha = 0.875$) and construct validity through second-order confirmatory factor analysis, confirming its applicability in measuring key dimensions such as instructional knowledge, attitude, and skills. Similarly, Şişman (2016) developed the Şişman© Instructional Leadership Behaviors Scale, which evaluates teachers' perceptions of principals' leadership practices. His study, based on a sample of 4,574 teachers, showed the scale's high reliability and validity, identifying five key factors in instructional leadership, including managing educational processes and teacher development. Lastly, Zhan, Anthony, Goddard, and Stansberry Beard (2023) introduced the Shared Instructional Leadership Scale (SILS), designed to assess the collaboration among school faculty in instructional leadership. Their study, which involved 422 teachers from 107 schools, confirmed the scale's unidimensional structure and established its reliability and validity for measuring shared instructional leadership.

Resource Providers

Several studies have highlighted the essential role of school principals as resource providers in enhancing instructional leadership. For example, Battad (2021) examined the instructional leadership skills of school heads in Castillejos District, Philippines, focusing on their ability to provide resources. The study found that effective resource provision by principals positively influenced teachers' self-efficacy, supporting their professional growth. Similarly, Al Sharafat, AlMasaeid, and Al-Zoubi (2024) assessed the instructional leadership practices of Jordanian public school principals, emphasizing that principals who efficiently allocated resources significantly contributed to improved teaching and learning environments. Additionally, Torrato et al. (2023) explored teachers' perceptions of instructional leadership in a private Philippine school, underscoring those principals who managed resources effectively were highly valued by teachers, as it directly impacted instructional practices.

Instructional Resource

In a 2023 study published in the *Journal of Education*, Junnila Koskinen Listiani, Kiljunen Vilhelm Dong, and Kontta Maenpaa Barus investigated the effects of instructional materials on literacy levels in primary schools in Helsinki, Finland. Their research concluded that learner-centered instructional resources significantly enhance students' reading, writing, and communication skills, underlining the importance of quality and relevant materials in literacy development. Similarly, Li Li, Cui Junming, Gan Yanfeng, and Yang Qiaoxin (2024), in a study published in the *British Journal of Teacher Education and Pedagogy*, explored the impact of instructional materials

on reading proficiency in government primary schools in China. They found that incorporating a variety of materials particularly those tailored to visual learners—greatly improved students’ reading abilities.

Communication

Effective communication is a key component of instructional leadership, as highlighted by various researchers. Uddin (2020), in his study published in *Educational Research and Reviews*, emphasized the importance of principals engaging in open and consistent communication with their instructional leadership teams. His research found that collaborative communication plays a crucial role in aligning school visions and enhancing instructional strategies to boost student achievement. Similarly, Lubis, Dewi, Pristanti, Dalimunthe, and Sagala (2022), in their explanatory study presented at the 2nd International Conference of Strategic Issues on Economics, Business and Education (ICoSIEBE), explored how elementary principals in Indonesia implement instructional leadership. They emphasized that monthly meetings and training sessions serve as important platforms for principals to communicate curriculum development plans, thereby supporting teacher collaboration and instructional improvement. Additionally, Yunita and Prasetyo (2024), in a recent publication in *Frontiers in Education*, examined how principal instructional leadership shapes teacher self-efficacy and performance. Their findings revealed that when principals maintain clear and supportive communication, it significantly boosts teachers’ confidence and effectiveness, ultimately contributing to a more empowered and high-performing school environment.

Conceptual Framework

This study is anchored in two foundational theories: Organizational Culture Theory (Schein, 1985) and Self-Determination Theory (Deci & Ryan, 1985), which together offer a comprehensive lens through which to understand how school culture and teaching engagement influence teacher instructional leadership in last mile schools.

Organizational Culture Theory emphasizes the significance of shared values, norms, and practices within institutions, highlighting how a positive school culture characterized by trust, collaboration, and shared leadership can foster a supportive environment where teachers feel empowered to take on leadership roles in instruction. It posits that the underlying values, beliefs, and assumptions shared by members of an organization significantly shape their behaviors and interactions.

In schools, this theory explains how culture manifests through leadership practices, teacher relationships, communication norms, and the general learning climate. A strong, positive school culture promotes collaboration, shared vision, professional growth, and collective responsibility for student success. It becomes especially crucial in last mile schools typically located in geographically remote and under-resourced areas where formal systems of support may be limited. In such contexts, a cohesive and supportive school culture can serve as a powerful internal driver for teacher motivation, commitment, and leadership.

Meanwhile, Self-Determination Theory focuses on the intrinsic motivation of individuals and asserts that when teachers' psychological needs for autonomy, competence, and relatedness are fulfilled, their engagement and professional commitment increase. In the context of last mile schools where geographic and resource constraints are prevalent these theories jointly suggest that a strong school culture and meaningful teaching engagement can serve as critical levers for promoting instructional leadership.

Complementing this, Self-Determination Theory emphasizes the importance of intrinsic motivation and the satisfaction of three basic psychological needs: autonomy, competence, and relatedness. When teachers feel they have control over their work, are confident in their skills, and experience meaningful relationships with colleagues, they are more likely to be engaged and committed to their roles.

Instructional leadership, in this framework, is not limited to formal administrative roles but encompasses the everyday leadership practices of teachers in planning, implementing, and evaluating effective instruction that leads to improved student outcomes. Therefore, this theoretical foundation provides the basis for examining how environmental and motivational factors contribute to the development of instructional leadership among teachers in remote and underserved educational settings.

This conceptual framework integrates Organizational Culture Theory and Self-Determination Theory to explore the relationships among key constructs: School Culture, Teaching Engagement, and Teacher Instructional Leadership in last mile schools. At the core of this framework, Organizational Culture Theory emphasizes the significance of the shared values, norms, and practices within a school environment. A positive and supportive school culture, characterized by collaboration, mutual respect, and shared goals, fosters an environment where teachers feel motivated and empowered to engage in instructional leadership.

Self-Determination Theory (SDT) further enriches this framework by focusing on the intrinsic motivation of teachers. According to SDT, when teachers' basic psychological needs for autonomy, competence, and relatedness are fulfilled, they are more likely to be engaged in their teaching practices, take initiative, and contribute to the overall instructional leadership of their school. In last mile schools, where external resources may be scarce, the role of internal motivation and a supportive culture becomes even more pivotal in ensuring teacher engagement and instructional effectiveness.

Through this framework, School Culture acts as a foundational pillar, providing the support and environment necessary for teaching engagement. As teachers engage more fully with their work and their school community, their capacity for Instructional Leadership increases. This, in turn, contributes to higher teacher productivity, marked by improved classroom practices, effective curriculum delivery, and better student outcomes. The combined impact of school culture and teaching engagement is central to enhancing teacher instructional leadership, particularly in challenging educational settings such as last mile schools.

Ultimately, this conceptual framework aims to shed light on how Organizational Culture Theory and Self-Determination Theory work together to shape teacher productivity and leadership within educational institutions,

providing valuable insights that can be applied to improve educational practices and outcomes in diverse school environments.

Research Paradigm

Independent Variables

Dependent Variable

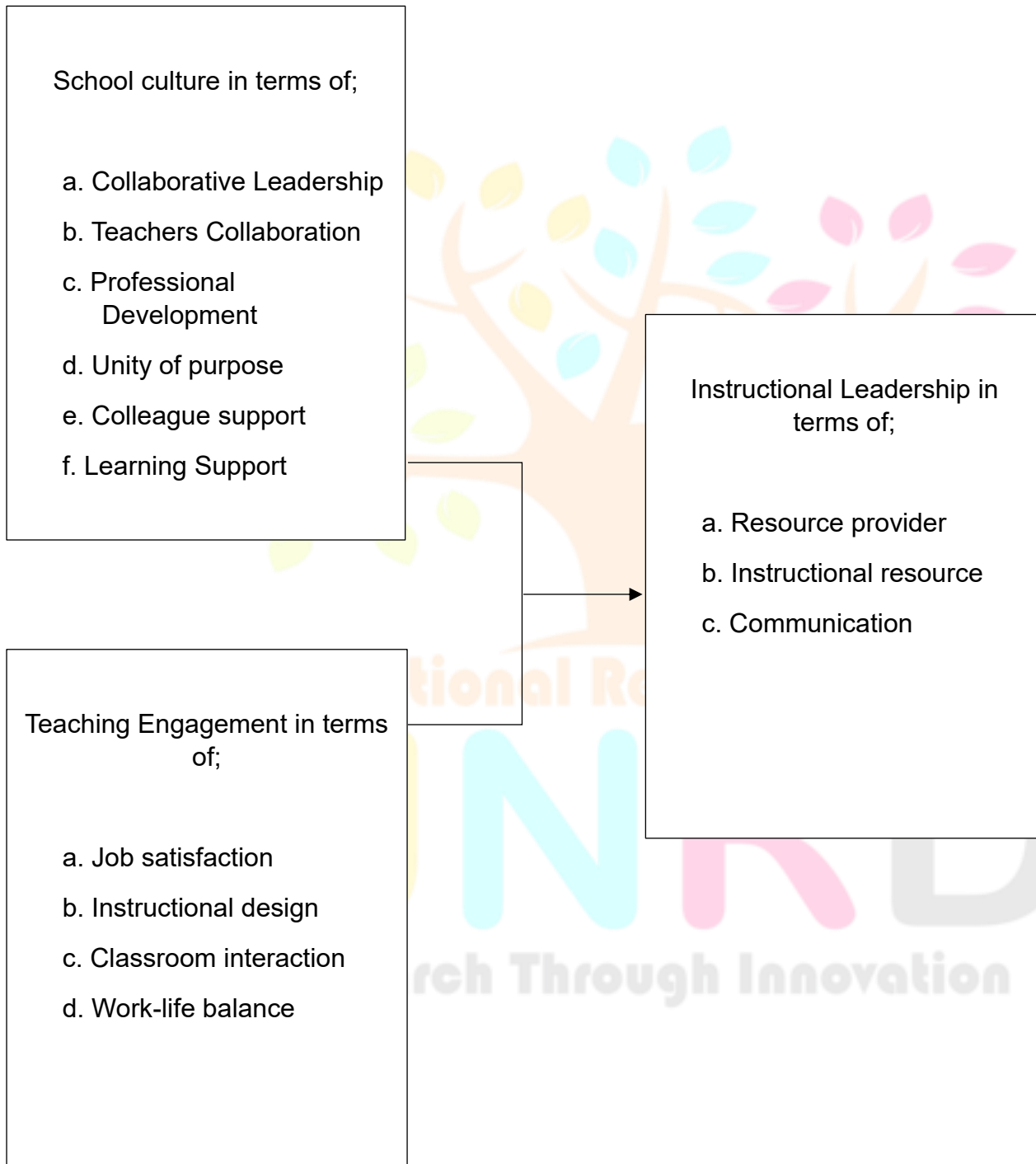


Figure 1. A Schematic Diagram of School Culture and Teaching Engagement on Teacher Instructional Leadership in Last Mile Schools.

Hypothesis of the Study

The following hypotheses are formulated and investigated considering the study's conceptual framework and tested at 0.05 level of significance.

H₀₁: There is no significant relationship between instructional leadership in last-mile schools and

- a. school culture
- b. teaching engagement

H₀₂: There is no variable that best predicts instructional leadership.

METHODOLOGY

This chapter presents the research design, locale of the study, participants of the study, ethical consideration, the research instrument, data gathering and statistical treatment of data.

Research Design

This study employs a descriptive-correlational research design, which is appropriate for examining the nature and degree of relationship between variables without manipulating them (Creswell, 2014). The descriptive component aims to provide an accurate profile of the prevailing practices in professional learning communities (PLCs), levels of teaching engagement, and the instructional delivery of teachers in basic education. Meanwhile, the correlational aspect seeks to determine whether and to what extent professional learning communities and teaching engagement are associated with the quality of instructional delivery. A quantitative research approach is adopted, utilizing survey questionnaires to gather numerical data from respondents. This method allows for the identification of patterns, relationships, and potential predictors of instructional delivery based on the presence and quality of Professional Learning Community practice and the engagement levels of teachers.

Locale of the Study

This study will be conducted in selected last-mile schools within the Division of Bukidnon. Last-mile schools refer to remote and underserved educational institutions that face significant challenges, such as limited access to resources, geographical isolation, and inadequate infrastructure. These schools often struggle with teacher retention, professional development opportunities, and leadership support, making them a critical focus for understanding the dynamics of school culture, teaching engagement, and instructional leadership.

The Division of Bukidnon, located in Northern Mindanao, Philippines, comprises a mix of rural and geographically disadvantaged schools that reflect the realities of last-mile education. The selection of last-mile

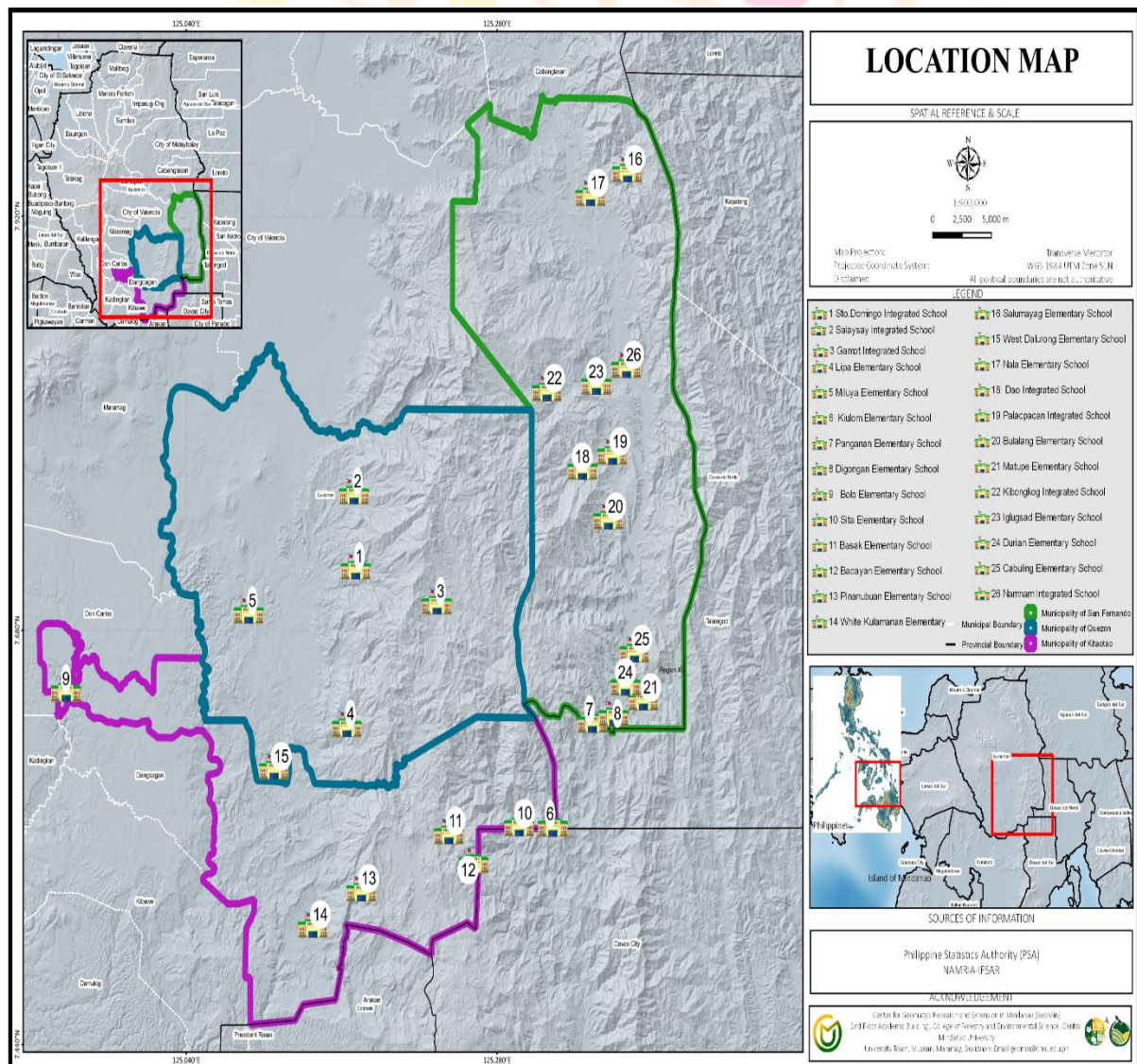
schools within this division will provide a representative sample of educators who navigate unique challenges in fostering instructional leadership while maintaining engagement in teaching.

The following are the schools participated in the survey.

Quezon Districts: Miluya Elementary School., Gamot Integrated, Lipa Elementary School, Sto. Domingo Integrated School and Salaysay Integrated School.

Kitaotao Districts Kiulom Elementary School, Panganan Elementary School, Digongan Elementary School, Bolo Elementary School, Sita Elementary School,, Basak Elementary School, Bacayan Elementary School Pinanubuan Elementary School, White Kulamanan Integrated School and West Dalurong Elementary School.

San Fernando Districts are Salumayag Integrated School, Nala Elementary School.Dao Integrated School, Palacapacan Integrated School, Bulalang Elementary School, Matupe Elementary School, Kibongkog Integrated School, Iglugsad Elementary School, Durian Elementary School, Cabuling Elementary School, and Namnam Integrated School.



Source: Center for Geometrics Research and Extension in Mindanao (GeoMin) Central Mindanao University, College of Forestry and Environmental Science

Figure 2. Location Map of the Division of Bukidnon (Quezon Districts, Kitaotao Districts and San Fernando Districts)

Participants of the Study

The study's respondents were 250 teachers of the selected schools as part of the study. They were the elementary teachers of Quezon I, II, III and IV Districts, San Fernando I and II Districts, and Kitaotao I, II, and III Districts

Table 1. The School and the Number of Participants

Name of School	District	Total Population	Percentage
1. Sto. Domingo Integrated School	Quezon IV	13	5.2
2. Salaysay Integrated School	Quezon IV	16	6.4
3. Gamot Integrated School	Quezon II	12	4.8
4. Lipa Elementary School	Quezon III	7	2.8
5. Miluya Elementary School	Quezon I	6	2.4
6. Kiulom Elementary School	Kitaotao I	6	2.4
7. Panganan Elementary School	Kitaotao I	7	2.8
8. Digongan Elementary School	Kitaotao I	11	4.4
9. Bolo Elementary School	Kitaotao II	9	3.6
10. Sita Elementary School	Kitaotao II	4	1.6
11. Basak Elementary School	Kitaotao II	7	2.8
12. Bacayan Elementary School	Kitaotao II	5	2
13. Pinanubuan Elementary School	Kitaotao II	7	2.8

14. White Kulamanan Integrated School	Kitaotao III	13	5.2
15. West Dalurong Elementary School	Kitaotao III	6	2.4
16. Salumayag Integrated School	San Fernando I	11	4.4
17. Nala Elementary School	San Fernando I	9	3.6
18. Dao integrated School	San Fernando II	15	6
19. Palacapacan Integrated School	San Fernando II	14	5.6
20. Bulalang Elementary School	San Fernando II	7	2.8
21. Matupe Elementary School	San Fernando II	13	5.2
22. Kibongkog Integrated School	San Fernando II	15	6
23. Iglugsad Elementary School	San Fernando II	13	5.2
24. Durian Elementary School	San Fernando II	7	2.8
25. Cabuling Elementary School	San Fernando II	6	2.4
26. Namnam Integrated School	San Fernando II	11	4.4
TOTAL		250	100

Research Instrument

Three sets of questionnaires were utilized in this study to categorize the content into three distinct areas: school culture, teaching engagement and teacher instructional leadership. These survey instruments served as the primary tools for data collection.

Part I employed the School Culture Scale was adopted from Gruenert (1998). It consists of 43 positively phrased questions that assess the overall school culture regarding collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership.

Scale	Descriptive Rating	Qualitative Interpretation
1	Rarely (R)	Very Low
2	Sometimes (S)	Low
3	Often (O)	Moderate
4	Very Often (VO)	High
5	Always (A)	Very High

Part II gauged the teaching engagement of public-school teachers. It consisted of eight positively phrased questions about job satisfaction, instructional design, classroom interaction, and work-life balance.

Scale	Descriptive Rating	Qualitative Interpretation
1	Rarely (R)	Very Low
2	Sometimes (S)	Low
3	Often (O)	Moderate
4	Very Often (VO)	High
5	Always (A)	Very High

Part III utilized the Instructional Leadership Scale developed by Litub (2022). It evaluates the instructional leadership skills of school administrators across three dimensions: resource provision, instructional resources, and communication. The resource provision dimension contains ten positively phrased questions that delve into the role of school administrators in providing educational materials and enhancing instructional practices. The instructional resource dimension consists of ten positively phrased questions that measure school administrators' leadership skills in guiding teachers toward exemplary performance. The communicator dimension encompasses ten positively phrased questions that focus on various aspects of communication within the school organization.

Scale	Descriptive Rating	Qualitative Interpretation
1	Rarely (R)	Very Low
2	Sometimes (S)	Low
3	Often (O)	Moderate
4	Very Often (VO)	High
5	Always (A)	Very High

These instruments capture teachers' perceptions and experiences regarding instructional leadership, school culture, and teaching engagement. A pilot testing procedure was carried out in the Malaybalay division to ensure the reliability and internal consistency of the test scale. The results indicated high reliability with Cronbach's alpha coefficients of .960.

Data Gathering Procedure

The study adhered to ethical guidelines and privacy regulations when collecting data, ensuring the privacy of the respondents. First, permission was obtained from the author of the questionnaire to respect their intellectual property rights. Next, a formal request was sent to VICTORIA G. GAZO, PhD, CESO V, the Division of Bukidnon superintendent, to survey secondary public-school teachers. Once approval was received, official endorsement letters were sent to school heads, allowing the distribution of the survey questionnaire. The researcher personally collected the questionnaires from designated school spots after giving them enough time to complete them. Finally, with the assistance of a statistician, the collected data was carefully recorded and analyzed to derive meaningful insights for the study.

Ethical Considerations

This study will adhere to strict ethical guidelines to ensure the rights, privacy, and well-being of all participants. Before data collection, informed consent will be obtained from all respondents, clearly explaining the purpose, scope, and voluntary nature of their participation. Participants will be assured that they have the right to withdraw from the study at any stage without any consequences.

To maintain confidentiality and anonymity, personal identifiers will not be collected, and responses will be coded to ensure that no individual can be traced. All collected data, including survey responses and interview transcripts, will be stored securely digital files will be password-protected, while physical documents will be kept in a locked storage facility accessible only to authorized researchers.

Additionally, the study will undergo a formal ethical review and approval process to ensure compliance with institutional research ethics standards. Any potential risks will be minimized, and participants will not be subjected to harm or coercion. The study will also adhere to principles of honesty, integrity, and academic rigor, ensuring that the findings are reported accurately and without bias.

Statistical Treatment of Data

This study employed descriptive and inferential statistics to analyze the collected data per the research objectives. Descriptive statistics were employed to assess variables such as instructional leadership, school culture, and

teaching engagement, utilizing measures such as the weighted mean. These descriptive statistics yielded a comprehensive overview of teachers' perceptions and experiences within Bukidnon division.

Inferential statistics, including correlation and regression analysis, were utilized to examine the relationships between variables and test hypotheses formulated based on the research objectives. The study sought to identify the key factors influencing teachers' engagement in teaching and utilize this information to enhance educational practices and policies. This was accomplished by investigating associations and making predictions about relationships.

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

School Culture among Teachers in Last Mile Schools

Table 2 illustrates the level of school culture regarding collaborative leadership, underscoring the importance of collaboration and shared expertise in addressing challenges and achieving common objectives, with an overall mean score of 4.61.

Table 2: Level of school culture in terms of collaborative leadership

INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Leaders value teachers' ideas.	4.12	Very Often	Evident
2. Leaders in this school trust the professional judgments of teachers.	4.34	Very Often	Evident
3. Leaders take time to praise teachers that perform well.	4.52	Always	Very Evident
4. The school mission provides a clear sense of direction for teachers.	4.79	Always	Very Evident
5. Leaders in our school facilitate teachers working together.	4.39	Always	Very Evident
6. Teachers are kept informed on current issues in the school.	4.53	Always	Very Evident
7. My involvement in policy or decision-making is taken seriously.	4.60	Always	Very Evident
8. Leaders support risk-taking and innovation in teaching.	4.56	Always	Very Evident
OVERALL MEAN	4.61	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident

3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

The data presented in Table 2 shows a highly positive school culture in terms of collaborative leadership, with an overall mean score of 4.61, which falls under the “Always” category and is described as "Very Evident." This suggests that school leaders consistently engage with teachers in a collaborative manner. The individual indicators show that leaders frequently value teachers' ideas (mean of 4.12), trust their professional judgment (mean of 4.34), and praise teachers for their performance (mean of 4.52). The school mission provides a clear sense of direction for teachers (mean of 4.79), and leaders actively facilitate teacher collaboration (mean of 4.39). Teachers are also kept informed on current issues (mean of 4.53), and their involvement in decision-making is taken seriously (mean of 4.60). Finally, leaders strongly support risk-taking and innovation in teaching (mean of 4.56). These results indicate that the school leadership consistently fosters an environment where collaboration, trust, and innovation are at the forefront of the school culture.

The findings from this data align with several established theories of leadership in education. The high levels of teacher recognition, trust, and involvement in decision-making are consistent with Leithwood and Jantzi's (2006) research on transformational leadership, which highlights that when leaders value teachers' contributions and professional judgment, it creates a more positive and productive school environment. The facilitation of collaboration and information sharing, as well as teacher empowerment, supports Hargreaves' (2003) findings that effective leadership encourages teamwork and enhances both teacher and student performance. The leaders' emphasis on innovation and risk-taking is in line with Fullan's (2007) assertion that fostering an environment open to new ideas and methods leads to continuous improvement. Furthermore, the transformational leadership style reflected in the results supports Bass (1985) and Wahlstrom & Louis (2008), who argue that participative leadership and teacher empowerment contribute to a positive school culture and improved outcomes in education.

Table 3 presents the level of school culture in terms of teacher collaboration, emphasizing the significance of collaborative practices among teachers in enhancing instructional effectiveness and fostering a supportive school environment, with an overall mean score of 4.73.

Table 3: Level of school culture in terms of teachers' collaboration

INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Teachers have opportunities for dialogue and planning across grades and subjects.	4.68	Always	Very Evident
2. Teachers trust each other.	4.28	Always	Very Evident
3. Teachers spend considerable time planning together.	4.72	Always	Very Evident
4. Teachers are willing to help whenever there is a need.	4.78	Always	Very Evident
5. Teachers' ideas are valued by other teachers.	4.40	Always	Very Evident
6. Teachers understand the mission of the school.	4.92	Always	Very Evident
7. Teachers are generally aware of what other teachers are teaching.	5.00	Always	Very Evident
8. Teachers work cooperatively in groups.	4.90	Always	Very Evident
9. Teachers work together to develop and evaluate programs and projects.	4.92	Always	Very Evident
OVER ALL MEAN	4.73	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation	The statement reveals a highly positive
1	1.00 – 1.50	Rarely	Not Evident	
2	1.51 – 2.50	Sometimes	Less Evident	
3	2.51 – 3.50	Often	Moderate	
4	3.51 – 4.50	Very Often	Evident	
5	4.51 – 5.00	Always	Very Evident	

school culture in terms of teachers' collaboration, with an overall mean score of 4.73, categorized as "Always" and described as "Very Evident." This indicates that collaboration among teachers is a consistent and significant practice within the school. Individual indicators reflect those teachers have ample opportunities for dialogue and planning across grades and subjects (mean of 4.68), and they trust one another (mean of 4.28). Teachers dedicate considerable time to planning together (mean of 4.72), and they are always willing to help when needed (mean of 4.78). The value placed on teachers' ideas by their colleagues is evident (mean of 4.40), and teachers have a strong understanding of the school mission (mean of 4.92). Additionally, teachers are fully aware of what their colleagues are teaching (mean of 5.00) and work cooperatively in groups (mean of 4.90). Teachers also collaborate effectively in developing and evaluating programs and projects (mean of 4.92). These results highlight those collaborative practices are central to the school's culture and are actively promoted by both teachers and the administration.

The findings are consistent with the research on collaborative practices and teacher cooperation in schools. Hargreaves (2003) emphasizes the importance of teacher collaboration for improving instructional effectiveness, which is reflected in the high mean scores for planning together, sharing ideas, and working in groups. Vescio, Ross, & Adams (2008) support the idea that collaborative professional communities, where teachers trust and help each other, are key to enhancing teaching quality and fostering positive school environments. The finding that teachers are aware of what their colleagues are teaching and are actively involved in developing and evaluating programs aligns with Fullan (2007), who suggests that such collaboration strengthens the alignment of instructional practices and increases the overall effectiveness of the school. Additionally, Leithwood & Jantzi (2006) highlight that a culture of collaboration not only enhances teaching but also aligns with the school's mission, as evidenced by the teachers' strong understanding of the school's goals in this study. The consistently high ratings reflect a school environment where collaborative practices are not only encouraged but are embedded in the daily workings of the school.

Table 4 presents the level of school culture in terms of professional development, demonstrating the teachers' strong commitment to continuous learning and growth, with an overall mean score of 4.61.

Table 4: Level of school culture in terms of professional development			
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Teachers utilize professional networks to obtain information and resources for classroom instruction.	4.94	Always	Very Evident
2. Teachers regularly seek ideas from seminars, colleagues, and conferences.	5.00	Always	Very Evident
3. Teachers are involved in the decision-making process.	4.48	Always	Very Evident
4. Teachers take time to observe each other teaching.	4.28	Always	Very Evident
5. Professional development is valued by the faculty.	4.52	Always	Very Evident
6. Teachers are rewarded for experimenting with new ideas and techniques.	4.44	Always	Very Evident
7. The faculty values school improvement.	4.60	Always	Very Evident
OVER ALL MEAN	4.61	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

This indicates a strong and consistent commitment to professional development within the school. Individual indicators show that teachers are highly engaged in various professional growth activities. Teachers regularly utilize professional networks to gain resources and information for classroom instruction (mean of 4.94), and they actively seek ideas from seminars, colleagues, and conferences (mean of 5.00). Teachers are also involved in the decision-making process (mean of 4.48), take time to observe one another's teaching (mean of 4.28), and value professional development (mean of 4.52). The practice of rewarding teachers for experimenting with new ideas and techniques is also evident (mean of 4.44), and faculty members highly value school improvement (mean of 4.60). These results demonstrate that the school fosters an environment where continuous learning, reflection, and professional growth are prioritized.

The findings align with research on the importance of professional development in fostering a culture of continuous improvement among teachers. According to Darling-Hammond et al. (2009), ongoing professional development is crucial in enhancing teachers' instructional practices and overall effectiveness, which is reflected in the high mean scores for seeking professional growth and collaborating with peers. Hiebert and Morris (2009) highlight those teachers who engage in activities like observing peers and participating in professional networks are more likely to improve their teaching practices. The finding that teachers are involved in the decision-making process supports the work of Supovitz (2006), who emphasizes that professional development should include opportunities for teachers to have a voice in decisions affecting their work. The strong focus on innovation and school improvement is in line with Fullan (2007), who asserts that fostering a culture of continuous improvement requires teachers to be rewarded for experimentation and supported in their growth efforts. The results indicate that the school has successfully created an environment where professional development is integral to both teacher growth and school progress.

Table 5 presents the level of school culture regarding unity of purpose. The findings indicate that teachers in the last mile schools share a strong sense of unity in working towards a common goal, with an overall mean of 4.66.

Table 5: Level of school culture in terms of unity of purpose

INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Teachers support the mission of the school.	4.76	Always	Very Evident
2. Teachers and parents have common expectations for student performance.	4.28	Always	Very Evident
3. The school mission provides a clear sense of direction for teachers.	4.80	Always	Very Evident
4. Teachers understand the mission of the school.	4.90	Always	Very Evident
5. Teachers and parents communicate frequently about student performance.	4.76	Always	Very Evident
6. The school mission statement reflects the values of the community.	4.64	Always	Very Evident
7. Teaching performance reflects the mission of the school.	4.48	Always	Very Evident
OVERALL MEAN	4.66	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

The results in Table 5 reveal the level of school culture in terms of unity of purpose, with an overall mean of 4.66, indicating that teachers exhibit a strong sense of alignment with the school's mission and goals. The indicators show high ratings across all items, with the highest mean scores recorded for teachers' understanding of the school mission (4.90) and the mission providing clear direction for teachers (4.80). Teachers consistently demonstrate their commitment to the school's objectives, reflecting a shared vision of purpose in their professional activities.

The findings suggest that there is a strong sense of unity among teachers in achieving common goals, further supported by positive relationships with parents and clear communication regarding student performance. This aligns with research by Fullan (2001), who emphasized that a unified school culture promotes collaborative efforts toward shared goals. Additionally, the teachers' alignment with the school's mission, as evidenced by their understanding and support for it, mirrors the findings of Hargreaves (2003), who highlighted that shared mission

values enhance teacher engagement and collective efficacy. Such unity is critical in fostering a supportive and focused educational environment, which contributes to improved teaching and student outcomes.

Table 6 illustrates the level of school culture in terms of collegial support. The findings reveal an overall mean of 4.70, highlighting those teachers in last mile schools exhibit a strong sense of support from stakeholders, creating a positive and collaborative working environment.

Table 6: Level of school culture in terms of colleague support			
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Teachers trust each other.	4.56	Always	Very Evident
2. Teachers are willing to help out whenever there is a need.	4.80	Always	Very Evident
3. Teachers' ideas are valued by other teachers.	4.79	Always	Very Evident
4. Teachers are generally aware of what other teachers are teaching.	4.72	Always	Very Evident
5. Teachers are encouraged to share ideas.	4.64	Always	Very Evident
OVERALL MEAN	4.70	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

Table 6 presents the level of school culture in terms of colleague support. The results indicate a strong culture of mutual trust and cooperation among teachers, with an overall mean of 4.70, rated as "Always" with a "Very Evident" qualitative interpretation across all indicators. Teachers consistently demonstrate a willingness to help one another, value each other's ideas, and share knowledge about their teaching practices. The mean scores suggest that teachers are highly supportive, aware of each other's work, and actively encourage idea-sharing, with the highest mean score of 4.80 indicating a very evident willingness to help when needed.

These findings support the research of Hargreaves (2001), who emphasizes that a culture of trust and collaboration among colleagues fosters a positive school climate and enhances teacher effectiveness. Additionally, research by Bryk and Schneider (2002) highlights that colleague support is crucial in building relational trust, which contributes to greater job satisfaction and a more collaborative environment. The high ratings in colleague support

indicate that the teachers in these schools are working in a collaborative and supportive environment, which is essential for both professional growth and student success.

Table 7 presents the level of school culture in terms of learning support. The findings revealed an overall mean score of 4.65, indicating that collaborative efforts and active learning partnerships among the school, parents, and the community play a crucial role in enhancing student performance.

Table 7: Level of school culture in terms of learning support			
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Teachers and parents have common expectations for student performance.	4.64	Always	Very Evident
2. Parents trust teachers' professional judgments.	4.70	Always	Very Evident
3. Teachers are kept informed on current issues in the school.	4.72	Always	Very Evident
4. Teachers maintain a current knowledge base about the learning process.	4.68	Always	Very Evident
5. Administrators protect instruction and planning time.	4.66	Always	Very Evident
6. Teaching practice disagreements are voiced openly and discussed.	4.52	Always	Very Evident
7. Students generally accept responsibility for their schooling.	4.64	Always	Very Evident
OVERALL MEAN	4.65	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

Table 7 illustrates the level of school culture in terms of learning support, with an overall mean of 4.65, qualitatively interpreted as "Very Evident". This high rating signifies that the teachers perceive strong and consistent support for student learning across various indicators. Notably, items such as parental trust in teachers' professional judgment (M=4.70), consistent communication of school issues to teachers (M=4.72), and the maintenance of updated knowledge on learning processes (M=4.68) all contribute to a collaborative and nurturing learning environment. These results indicate that both the internal (teachers and administrators) and external

(parents and students) stakeholders are actively engaged in the educational process, reinforcing a supportive culture focused on student success.

These results are aligned with the findings of Epstein (2001), who emphasized the vital role of school-family-community partnerships in enhancing student learning and performance. Moreover, Bryk and Schneider (2002) highlighted that relational trust among educators, parents, and students is a foundational element in establishing effective school communities. The “very evident” learning support within the surveyed schools indicates that these partnerships are functioning well, providing students with the encouragement and resources needed to thrive academically. This supports the view of Leithwood and Jantzi (2006), who argued that sustained academic improvement is closely tied to a school's ability to engage multiple stakeholders in meaningful, collaborative efforts.

Table 8 summarizes the school culture based on seven (7) indicators. The overall mean of 4.65 indicates that the behaviors and values represented by these indicators are prevalent and consistently observed within the last mile school environment.

Table 8: Summary of School Culture in all components			
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Collaborative leadership	4.61	Always	Very Evident
2. Teacher’s collaboration	4.73	Always	Very Evident
3. Collegial support	4.70	Always	Very Evident
4. Unity of purpose	4.66	Always	Very Evident
5. Learning support	4.65	Always	Very Evident
6. Professional development	4.61	Always	Very Evident
7. Collaborative leadership	4.61	Always	Very Evident
OVERALL MEAN	4.65	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

The results in Table 8 present a summary of the level of school culture across its core components. The data show a consistently high level of manifestation across all indicators, with an overall mean of 4.66, indicating that all

six components Teacher's Collaboration (4.73), Collegial Support (4.70), Unity of Purpose (4.66), Learning Support (4.65), Professional Development (4.61), and Collaborative Leadership (4.61) are "Always" practiced and "Very Evident" in the school culture of last mile schools.

These findings suggest that the schools involved in the study exhibit a strong, positive, and supportive cultural environment where teachers actively collaborate, receive and provide collegial support, share a unified vision, and engage in continuous professional development. This aligns with the findings of Gruenert and Whitaker (2015), who emphasize that a positive school culture significantly enhances teacher morale and student achievement. Similarly, Deal and Peterson (2009) highlight that a school culture grounded in shared leadership and unity of purpose fosters an environment where teaching and learning can thrive even in resource-constrained settings such as last mile schools.

Teaching engagement in last mile schools

Table 9. presents the level of teaching engagement in terms of job satisfaction. The results show an overall mean score of 4.83, highlighting job satisfaction as a crucial factor in fostering teaching engagement among teachers in last mile schools, with an overall mean 4.83.

Table 9: Level of teaching engagement in terms of job satisfaction			
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. I feel satisfied with my teaching job.	4.9	Always	Very Evident
2. I find teaching to be a fulfilling profession.	4.88	Always	Very Evident
3. I am proud to be a teacher.	4.8	Always	Very Evident
4. I enjoy interacting with students in the classroom.	4.68	Always	Very Evident
5. I feel a sense of accomplishment when my students succeed.	4.88	Always	Very Evident
6. I am motivated to improve my teaching skills.	4.92	Always	Very Evident
7. I feel valued and appreciated as a teacher.	4.82	Always	Very Evident
8. I am passionate about the subjects I teach.	4.76	Always	Very Evident
OVERALL MEAN	4.83	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

Table 9 presents the level of teaching engagement in terms of job satisfaction. The data show consistently high ratings across all indicators, with mean scores ranging from 4.68 to 4.92. The highest-rated indicator was “I am motivated to improve my teaching skills” with a mean of 4.92, followed closely by “I feel satisfied with my teaching job” (4.90) and “I feel a sense of accomplishment when my students succeed” (4.88). The overall mean score of 4.83 falls under the “Always” and “Very Evident” descriptive and qualitative interpretations, respectively. This indicates that teachers in last mile schools consistently demonstrate a strong sense of satisfaction, motivation, and pride in their profession, all of which are crucial dimensions of teaching engagement.

The results affirm that job satisfaction plays a significant role in teacher engagement. According to Klassen and Chiu (2010), teachers with higher job satisfaction are more likely to be engaged, resilient, and committed to their profession. Similarly, Hakanen, Bakker, and Schaufeli (2006) argue that job satisfaction enhances teacher well-being and reduces burnout, particularly in challenging school environments. In the context of last mile schools, where teachers often face limited resources and geographical isolation, maintaining high levels of job satisfaction is crucial. These findings highlight that despite such challenges, the teachers remain passionate, valued, and driven—attributes that significantly contribute to their engagement and effectiveness in teaching.

Table 10 shows the level of teaching engagement in terms of instructional design. The results highlight the teachers' consistent efforts to plan, organize, and implement effective instructional strategies that meet students' diverse learning needs and foster meaningful classroom experiences with an overall mean

Table 10: Level of teaching engagement in terms of instructional design				
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION	
1. I am confident in my ability to design effective instructional materials.	5.00	Always	Very Evident	
2. I enjoy creating engaging lesson plans.	5.00	Always	Very Evident	
3. I feel that my instructional design skills positively impact student learning.	5.00	Always	Very Evident	
4. I am open to trying new teaching methods and technologies.	4.96	Always	Very Evident	
5. I am skilled at integrating technology into my teaching.	4.52	Always	Very Evident	

6. I am satisfied with the resources and materials available to support my teaching.	4.76	Always	Very Evident
7. I feel that my instructional design aligns with the needs and interests of my students.	5.00	Always	Very Evident
8. I believe my instructional design promotes student engagement.	5.00	Always	Very Evident
OVERALL MEAN	4.91	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

Table 10 presents the level of teaching engagement in terms of instructional design, with an overall mean of 4.91, described as “Always” and qualitatively interpreted as “Very Evident.” All indicators received consistently high ratings, particularly those related to confidence in designing effective instructional materials (5.00), enjoyment in lesson planning (5.00), and belief in the positive impact of instructional design on student learning (5.00). Teachers also demonstrated openness to new teaching methods and technology (4.96) and satisfaction with available teaching resources (4.76). These results reflect the teachers’ strong competence, enthusiasm, and commitment to instructional design as a key part of their professional practice.

The findings support the view that effective instructional design is central to quality teaching and student engagement. According to Reigeluth and Carr-Chellman (2009), instructional design that is well-aligned with learners' needs significantly enhances learning outcomes. Similarly, Koehler and Mishra (2009) emphasize the importance of technological integration in teaching, which was also evident in the respondents’ high self-ratings on this area. The consistently high scores suggest that teachers in last mile schools are not only well-prepared in terms of planning and delivering instruction but are also proactive in adapting their methods to promote student engagement and learning success.

Table 11 illustrates the level of teaching engagement in terms of classroom interaction. The findings revealed an impressive overall mean score of 4.99, indicating that teachers consistently foster a highly interactive, engaging, and student-centered classroom environment. This high level of engagement reflects the teachers' strong commitment to creating meaningful learning experiences and building positive teacher-student relationships.

Table 11: Level of teaching engagement in terms of classroom interaction

INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. I establish positive and respectful relationships with my students.	4.96	Always	Very Evident
2. I effectively manage classroom discussions and activities.	5.00	Always	Very Evident
3. I encourage active participation and collaboration among students.	5.00	Always	Very Evident
4. I provide timely and constructive feedback to students.	5.00	Always	Very Evident
5. I am skilled at addressing students' individual learning needs.	5.00	Always	Very Evident
6. I create a supportive and inclusive classroom environment.	5.00	Always	Very Evident
7. I am attentive to students' emotional well-being and needs.	5.00	Always	Very Evident
8. I promote a sense of belonging and community in my classroom.	5.00	Always	Very Evident
OVERALL MEAN	4.99	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

Table 11 presents the level of teaching engagement in terms of classroom interaction, showing an overall mean of 4.99, which is categorized as “Always” and described as “Very Evident.” All indicators reflect strong performance, particularly in areas such as fostering positive relationships with students (4.96), effectively managing classroom discussions (5.00), and encouraging active participation (5.00). Additionally, teachers demonstrated high proficiency in providing timely feedback (5.00), addressing individual learning needs (5.00), and creating a supportive, inclusive, and emotionally attentive classroom environment (5.00). The results indicate that teachers in last mile schools prioritize student engagement, emotional well-being, and a sense of community within the classroom.

The findings align with research emphasizing the importance of classroom interaction and teacher-student relationships for student engagement and success. According to Hattie (2009), positive teacher-student relationships and effective classroom management are crucial for fostering a productive learning environment. Furthermore, Pianta (2006) asserts that teachers' attention to students' emotional needs and individual learning requirements promotes a more inclusive and supportive learning experience. These results suggest that teachers in last mile schools are not only highly skilled in classroom management but also deeply committed to creating an environment that supports both academic and emotional growth, which is vital for student success.

Table 12 presents the level of teaching engagement regarding the work-life balance of teachers in last mile schools, with an overall mean of 4.58. This indicates that teachers in these schools are generally successful in maintaining a balance between their professional and personal lives, which is essential for long-term well-being

Table 12: Level of teaching engagement in terms of work-life balance			
INDICATOR	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. I am able to maintain a healthy work-life balance as a teacher.	4.92	Always	Very Evident
2. I have enough time for personal hobbies and interests outside of work.	3.96	Very Often	Evident
3. I feel well-rested and energized to teach.	4.74	Always	Very Evident
4. I effectively manage my workload and prioritize tasks.	4.58	Always	Very Evident
5. I have access to resources and support to manage work-related stress.	4.58	Always	Very Evident
6. I am satisfied with the level of flexibility in my teaching schedule.	4.60	Always	Very Evident
7. I am able to disconnect from work during non-working hours.	4.48	Very Often	Evident
8. I feel that my work as a teacher enhances my overall well-being.	4.80	Always	Very Evident
OVERALL MEAN	4.58	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

The findings revealed an overall mean score of 4.58, which falls under the "Always" category and is interpreted as "Very Evident." This high score suggests that teachers in last mile schools are generally successful in maintaining a balance between their professional responsibilities and personal lives. Notably, teachers reported being able to manage their workload effectively, feeling well-rested and energized, and having access to resources for managing work-related stress. However, there were slightly lower scores regarding time for personal hobbies and interests outside of work (mean of 3.96) and disconnecting from work during non-working hours (mean of 4.48), indicating that there might still be some challenges in fully achieving a perfect balance.

The results align with existing literature, which suggests that maintaining a healthy work-life balance is crucial for teacher retention and job satisfaction. According to studies by Clark (2001) and Kelliher (2005), teachers who are able to manage work-related stress and maintain personal time experience higher levels of well-being and engagement. Moreover, the finding that teachers reported being able to disconnect from work during non-working hours (though still somewhat challenging) supports the work of Kelliher (2005), who emphasized the importance of detaching from work to rejuvenate and enhance overall productivity. Therefore, while the overall results suggest a positive work-life balance, addressing areas where teachers find it challenging to disengage could further enhance their engagement and satisfaction in the teaching profession.

Table 13 summarizes the four indicators of teaching engagement in last mile schools in the Division of Bukidnon particularly in the districts of Quezon, San Fernando and Kitaotao.

INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Classroom interaction	4.99	Always	Very Evident
2. Instructional design	4.91	Always	Very Evident
3. Job satisfaction	4.83	Always	Very Evident
4. Work-life balance	4.58	Always	Very Evident
OVERALL MEAN	4.83	Always	Very Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

The results presented in Table 13 summarize the overall level of teaching engagement across four major components: classroom interaction, instructional design, job satisfaction, and work-life balance. Among these, classroom interaction scored the highest with a mean of 4.99, followed by instructional design at 4.91, job satisfaction at 4.83, and work-life balance at 4.58. The overall mean of 4.83 indicates that teachers consistently demonstrate a high level of engagement across all components, with each aspect being rated as "Always" and "Very Evident."

The findings suggest that teachers in last mile schools are deeply engaged in their profession, particularly in their interactions with students and instructional planning, which are crucial to effective teaching. This supports the claims of Schaufeli and Bakker (2004), who emphasized that high teaching engagement is characterized by vigor, dedication, and absorption in one's work. The slightly lower yet still strong rating in work-life balance also reflects the need to maintain sustainable well-being among educators. These results affirm that promoting strong engagement across multiple domains is vital for sustaining teaching effectiveness, especially in challenging contexts like last mile schools.

Level of instructional leadership among teachers in last mile schools

Table 14. presents the level of instructional leadership in terms of being a resource provider, highlighting how effectively school leaders support teaching and learning by ensuring access to adequate instructional materials, tools, and professional resources necessary for effective classroom instruction.

Table 14. Level of instructional leadership in terms of resource provision			
	Mean	Descriptive Rating	Qualitative Interpretation
Conducts or participates in workshops, committees, and conferences designed to promote the intellectual, social, and physical welfare of students.	4.40	Very Often	Evident
Evaluates the effectiveness of instructional programs of the school and applies remedial actions in areas requiring remediation.	4.68	Always	Very Evident
Facilitates professional learning among colleagues for the improvement of instruction.	4.48	Very Often	Evident
Works with colleagues to collect, analyze, and disseminate data related to the quality of professional learning and its effect on teaching and student learning.	4.62	Always	Very Evident
Develops tests, questionnaires, and conducts procedures that measure the effectiveness of curricula and uses these	4.60	Always	Very Evident

tools to determine whether program objectives are being met.			
Plans or conducts teacher training programs and conferences dealing with new classroom procedures, instructional materials, and teaching aids.	4.38	Always	Very Evident
Observes work of teaching staff to evaluate performance and recommend changes that could strengthen classroom teaching skills.	4.25	Always	Very Evident
Assists teachers in classroom organization.	3.87	Very Often	Evident
Helps teachers in interpreting test results to assess each pupil's abilities and performance.	3.34	Often	Moderately Evident
Shares knowledge and skills professionally and helps identify powerful instructional strategies and effective elements of lesson plans for effective teaching and learning processes.	3.79	Very Often	Evident
OVERALL MEAN	4.27	Very Often	Evident

The overall mean score of 4.27, descriptively rated as "Very Often", indicates that school leaders are generally consistent in providing instructional support and resources to enhance teaching and learning. High mean scores were observed in areas such as evaluating instructional programs (4.68), facilitating data-based discussions (4.62), and developing evaluation tools to assess curricular effectiveness (4.60). However, lower scores were noted in assisting teachers with test result interpretation (3.34) and classroom organization (3.87), suggesting areas for improvement.

These results support the findings of Blasé and Blasé (2000), who emphasized that effective instructional leadership includes supporting teacher professional growth through collaborative dialogue, modeling best practices, and providing necessary resources. Similarly, Hallinger (2003) noted that principals who frequently engage in resource provisioning contribute to better instructional quality and improved student outcomes. The moderately evident performance in certain indicators, such as support in interpreting test results, aligns with Leithwood et al. (2004), who argue that distributed leadership and targeted professional support are key to maximizing teacher performance. Thus, while overall support is evident, strengthening leadership roles in more technical, data-informed areas could further enhance instructional quality.

Table 15 presents the level of instructional leadership regarding instructional resources, revealing an overall mean of 4.04, which indicates that instructional leaders very often support teachers through access to updated materials, collaboration, and professional resources, though provision of physical materials remains moderately evident.

Table 15. Level of instructional leadership in terms of instructional resources

INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
Updates teachers about the current research and practices through presentations or emails.	4.38	Very Often	Evident
Helps find alternative teaching materials to provide additional practice with particular skills.	4.18	Very Often	Evident
Keeps herself/himself abreast of numerous changes and resources in education to provide opportunities for teachers to come up with instructional innovations.	4.19	Very Often	Evident
Fosters team building and collaboration to improve instruction.	4.36	Very Often	Evident
Helps teachers share their best practices in teaching and classroom instruction.	4.32	Very Often	Evident
Assists teachers in accessing and using professional resources in order to select appropriate strategies to improve student learning.	4.26	Very Often	Evident
Recommends, orders, or authorizes the purchase of instructional materials, supplies, equipment, and visual aids designed to meet student educational needs.	3.46	Often	Moderately Evident
Ensures teachers have materials necessary for the successful execution of their jobs.	3.46	Often	Moderately Evident
Often employs a variety of communication and dissemination skills to share information and resources including school-based training to help improve the performance of teachers.	4.10	Very Often	Evident
Inspects instructional equipment to determine if repairs are needed.	3.74	Very Often	Evident
Instructional Resource-Mean	4.04	Very Often	Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident

3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

Table 15 presents the level of instructional leadership in terms of instructional resources. The data show an overall mean of 4.04, interpreted as "Very Often" and "Evident", indicating that instructional leaders frequently provide support in accessing updated teaching strategies, collaboration opportunities, and professional learning resources. High mean scores were observed in aspects such as updating teachers on current research (4.38), fostering team collaboration (4.36), and helping teachers share best practices (4.32). However, relatively lower mean scores were recorded in the provision of physical teaching materials (3.46) and ensuring availability of materials needed for instruction (3.46), which fall under the "Moderately Evident" category.

These findings suggest that while instructional leaders are consistent in promoting knowledge sharing, collaboration, and instructional development, there is still room for improvement in tangible resource support. As emphasized by Blasé and Blasé (1999), effective instructional leadership not only involves promoting reflection and dialogue among teachers but also ensuring the availability of resources that support innovative and effective instruction. Furthermore, Leithwood et al. (2004) argue that strong instructional leadership must bridge both pedagogical and material support to fully empower teachers in enhancing student learning outcomes.

Table 16 presents the level of instructional leadership in last mile schools regarding communicator proficiency, emphasizing the school leaders' frequent involvement in fostering open communication, providing constructive feedback, and promoting collaboration among teachers to enhance instructional practices and student learning outcomes.

Table 16. Level of the instructional leadership in terms of communicator			
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
Models effective skills in listening, presenting ideas, leading discussions, clarifying, and identifying the needs of self and others in order to advance shared goals and professional learning.	4.38	Very Often	Evident
Provides constructive feedback to colleagues to strengthen teaching practices and improve student learning.	4.28	Very Often	Evident
Holds meetings to discuss instructional concerns of the school.	4.20	Very Often	Evident
Organizes information and ideas to be discussed during meetings.	4.36	Very Often	Evident
Creates a climate of trust and critical reflection in order to engage colleagues in	4.22	Very Often	Evident

challenging conversations about student learning and solutions to identified issues.			
Motivates teachers to work cooperatively to promote changes in instructional practices to improve student learning.	4.20	Very Often	Evident
Collaborates with teachers in the design and formulation of instructional objectives to improve educational practices and student learning.	4.21	Very Often	Evident
Leads formal and informal groups.	4.18	Very Often	Evident
OVERALL MEAN	4.26	Very Often	Evident

SCALE	RANGE	Descriptive Rating	Qualitative Interpretation
1	1.00 – 1.50	Rarely	Not Evident
2	1.51 – 2.50	Sometimes	Less Evident
3	2.51 – 3.50	Often	Moderate
4	3.51 – 4.50	Very Often	Evident
5	4.51 – 5.00	Always	Very Evident

The results from Table 16 indicate that the level of instructional leadership in last mile schools in terms of communicator proficiency shows a high level of effectiveness. With an overall mean of 4.26, the school leaders frequently exhibit proficiency in communication skills, as evidenced by their ability to model effective listening, present ideas, lead discussions, and clarify issues, all contributing to the advancement of shared goals and professional learning.

The findings suggest that school leaders in these schools create an environment that fosters trust and encourages critical reflection, enabling colleagues to engage in constructive conversations about improving student learning. Furthermore, leaders motivate teachers to collaborate in enhancing instructional practices and often lead both formal and informal groups to support this collaboration. These findings align with research by Leithwood et al. (2004), who emphasized the critical role of communication in effective instructional leadership, especially in building professional relationships and guiding educational improvements.

Table 17 shows the three components of instructional leadership as one of the challenges faced by the teachers in last mile school with the overall mean of 4.83.

Table 17: Summary of Instructional Leadership in all components			
INDICATORS	MEAN	DESCRIPTIVE RATING	QUALITATIVE INTERPRETATION
1. Resource provision	4.27	Very often	Evident
2. Instructional resource	4.04	Very often	Evident
3. Communicator	4.26	Very often	Evident
OVERALL MEAN	4.19	Very often	Evident

The results shown in Table 17 summarize the level of instructional leadership across three components: resource provision, instructional resources, and communicator proficiency. Among these, resource provision recorded the highest mean at 4.27, closely followed by communicator at 4.26, while instructional resource received the lowest mean at 4.04. The overall mean of 4.19 falls under the descriptive rating of "Very Often," with a qualitative interpretation of "Evident," indicating that school leaders regularly demonstrate effective instructional leadership practices.

The findings highlight that school heads in last mile schools are consistently engaged in facilitating resources, communication, and instructional support, aligning with the assertions of Hallinger (2005) who emphasized that strong instructional leadership is key to improving teaching quality and student learning. The slightly lower rating in instructional resources suggests areas where leadership can further enhance support, particularly in ensuring the availability and strategic use of teaching materials. Overall, the data reflect a proactive approach to leadership that promotes collaboration, communication, and instructional improvement within these challenging educational environments.

Correlation analysis between variables

Table 18. Correlation analysis between Instructional Leadership, School Culture and Teaching Engagement.

	R-VALUE	PROBABILITY
School Culture		
Collaborative leadership	.985**	.000**
Teachers' collaboration	.957**	.000**
Professional development	.968**	.000**

Unity of purpose	.972**	.000**
Colleague Support	.929**	.000**
Learning Support	.947**	.000**
Teaching Engagement		
Job Satisfaction	.863**	.000**
Instructional Design	.938**	.000**
Classroom Interaction	.533**	.000**
Work-Life Balance	.983**	.000**

Table 18 presents the results of the correlation analysis conducted to determine the relationship between Instructional Leadership and two key constructs.

The findings reveal that all variables have statistically significant positive correlations with instructional leadership at the 0.01 level ($p < .01$), as indicated by the double asterisks (**). within school culture, the strongest correlation is observed between instructional leadership and collaborative leadership ($r = .985$), followed by unity of purpose ($r = .972$), professional development ($r = .968$), and teachers' collaboration ($r = .957$). colleague support ($r = .929$) and learning support ($r = .947$) also exhibit very strong correlations. for teaching engagement, work-life balance has the highest correlation with instructional leadership ($r = .983$), followed by instructional design ($r = .938$) and job satisfaction ($r = .863$). The lowest correlation is found in classroom interaction ($r = .533$), although this value still represents a moderate positive relationship.

These results suggest that instructional leadership plays a significant role in shaping a positive school culture and enhancing teaching engagement. the very high correlations with elements of school culture imply that when school leaders exhibit strong instructional guidance, collaborative and supportive environments are more likely to flourish. This includes a shared commitment to professional growth and a unified sense of purpose among teachers. similarly, the strong positive relationships with aspects of teaching engagement indicate that instructional leaders can directly influence teacher satisfaction, effective instructional planning, and a healthy work-life balance. The relatively lower correlation with classroom interaction suggests that while leadership remains influential, classroom-level dynamics may also be affected by other contextual or individual factors.

Table 19. Regression analysis between school culture and instructional leadership.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.724	.099		-37.711**	.000
Collaborative Leadership	.320	.036	.251	8.836**	.000
Teachers Collaboration	.425	.061	.190	6.953**	.000
Professional Development	.579	.032	.274	18.146**	.000
Unity of Purpose	.366	.064	.194	5.700**	.000
Collegial Support	.010	.001	.140	9.343**	.000
Learning Support	-.030	.038	.018	.811ns	.418

a. Dependent Variable: Instructional Leadership

Table 19 shows the results of a multiple linear regression analysis conducted to determine the predictive influence of the different dimensions of school culture on instructional leadership. The model includes six predictors: collaborative leadership, teachers' collaboration, professional development, unity of purpose, collegial support, and learning support. The table reports both unstandardized (b) and standardized (beta) coefficients, along with the corresponding t-values and significance levels (p-values). Instructional leadership is the dependent variable.

The regression model reveals that five out of the six predictors significantly contribute to the prediction of Instructional Leadership. Among these, professional development emerged as the strongest predictor ($B = .274$, $t = 18.146$, $p < .001$), followed by collaborative leadership ($B = .251$, $t = 8.836$, $p < .001$), unity of purpose ($B = .194$, $t = 5.700$, $p < .001$), teachers' collaboration ($B = .190$, $t = 6.953$, $p < .001$), and collegial support ($B = .140$, $t = 9.343$, $p < .001$).

In contrast, Learning Support ($B = -.018$, $t = -.811$, $p = .418$) does not significantly predict Instructional Leadership. The constant value of -3.724 is statistically significant ($p < .001$), but it should be interpreted with caution, as it primarily represents the expected value of Instructional Leadership when all predictors are zero.

The results suggest that specific dimensions of school culture are significant predictors of instructional leadership. Notably, professional development has the greatest impact, indicating that school environments that promote continuous learning and capacity-building for teachers tend to foster stronger instructional leadership.

Similarly, collaborative leadership, teachers' collaboration, and unity of purpose also make meaningful contributions, implying that when a school culture values cooperation, shared vision, and joint problem-solving, instructional leadership is more likely to thrive.

Collegial support, although with a relatively lower beta value, still shows a significant positive effect. interestingly, learning support is the only variable that does not significantly influence instructional leadership, suggesting that while support for student learning is crucial, it may not directly enhance leadership practices unless integrated with other collaborative and professional strategies.

Table 20. Regression analysis between teaching engagement and instructional leadership.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	- 3.818	3.025		-1.262ns	.208
Job Satisfaction	-.250	.073	-.093	-3.442**	.001
Instructional Design	-.909	.444	-.149	-2.046*	.042
Classroom Interaction	1.245	.864	.033	1.442ns	.151
Worklife Balance	1.661	.083	1.192	20.012**	.000

a. Dependent Variable: Instructional Leadership

Table 20 presents the results of a multiple regression analysis conducted to examine the extent to which the dimensions of teaching engagement predict instructional leadership. The model includes four independent variables: job satisfaction, instructional design, classroom interaction, and work-life balance. the dependent variable is instructional leadership. the table provides both unstandardized (B) and standardized (beta) coefficients, along with the corresponding t-values and p-values indicating statistical significance.

Among the four predictors, work-life balance shows the strongest and statistically significant positive effect on instructional leadership ($\beta = 1.192$, $t = 20.012$, $p < .001$), indicating it is the most influential variable in the model. instructional design also has a significant negative relationship with instructional leadership ($B = -.149$, $t = -2.046$, $p = .042$), though the effect size is modest. similarly, job satisfaction exhibits a small but statistically significant negative effect ($B = -.093$, $t = -3.442$, $p = .001$). on the other hand, classroom interaction does not significantly predict instructional leadership ($B = .033$, $t = 1.442$, $p = .151$).

The results suggest a nuanced relationship between teaching engagement dimensions and instructional leadership. The strong positive effect of work-life balance underscores its central role in enhancing instructional leadership—educators who perceive a healthy balance between work and personal life are more likely to engage in leadership

practices that support instructional quality. Conversely, the negative coefficients for job satisfaction and instructional design are somewhat unexpected and may imply that these variables operate within more complex dynamics—possibly due to role conflicts or misalignments between satisfaction levels and leadership demands. Classroom interaction, while positively correlated, does not emerge as a significant predictor in this multivariate model, suggesting its influence may be mediated by or dependent on another contextual factor.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

The chapter contains the summary of the findings, the conclusions extracted from the given findings, and the recommendations based on the conclusions.

Summary

The research conducted in last mile schools within the Division of Bukidnon provides valuable insights into the relationship between professional learning communities, teaching engagement, and instructional leadership. The study reveals that school culture and teaching engagement significantly contribute to strengthening instructional leadership among teachers. The data indicates that educators perceive a high level of support and collaboration within their schools, reflected in the consistently high mean scores across key variables such as collaborative leadership (4.61), teachers' collaboration (4.73), and professional development (4.61). The overall mean score for school culture was 4.65, indicating a strong and cohesive environment that encourages shared values and collective responsibility.

In terms of teaching engagement, results also show consistently high mean scores across components like classroom interaction (4.99), instructional design (4.91), job satisfaction (4.83), and work-life balance (4.58), with an overall mean of 4.83. These scores suggest that teachers are highly engaged, finding satisfaction in their roles, designing effective instruction, and maintaining a healthy work-life balance—all of which contribute to a thriving school environment.

Correlation analysis further emphasizes the strong interconnectedness between instructional leadership and the various components of both school culture and teaching engagement. All correlations were found to be highly significant ($p < .01$). Notably, collaborative leadership ($r = .985$), unity of purpose ($r = .972$), and professional development ($r = .968$) showed very strong relationships with instructional leadership. Among teaching engagement factors, work-life balance ($r = .983$) and instructional design ($r = .938$) also demonstrated strong positive correlations, underscoring the critical role of personal well-being and instructional quality in leadership development.

The regression analysis results offer deeper insight into which factors most significantly predict instructional leadership. Within school culture, professional development emerged as the strongest predictor, followed by collaborative leadership, unity of purpose, and teachers' collaboration. This indicates that instructional leadership

is more likely to flourish in environments that prioritize teacher growth, collective goal-setting, and peer collaboration. In contrast, learning support was not a significant predictor, suggesting it may influence leadership only when combined with other structural supports.

From the perspective of teaching engagement, work-life balance stood out as the most influential factor in predicting instructional leadership, emphasizing that teachers who feel personally and professionally supported are more likely to take on leadership roles and responsibilities. While classroom interaction was moderately correlated with instructional leadership, it did not significantly predict leadership in the multivariate model—possibly due to its dependence on individual classroom dynamics rather than broader schoolwide practices.

The study concludes that cultivating a professional learning community defined by shared leadership, a unified purpose, and ongoing professional development is essential to advancing instructional leadership. By supporting teachers in their professional roles while also attending to their well-being, schools in the Division of Bukidnon can significantly enhance teaching quality and instructional leadership. These improvements not only empower teachers but also contribute meaningfully to improved student outcomes across the division.

Conclusion

The research conducted in last mile schools within the Division of Bukidnon underscores the vital role of school culture and teaching engagement in strengthening instructional leadership. The findings reveal that teachers experience a high level of collaboration and professional support, as shown by strong mean scores in key areas such as collaborative leadership, teachers' collaboration, and professional development. These elements reflect a cohesive learning community where shared goals and mutual support are actively practiced, fostering an environment in which instructional leadership can flourish.

Teaching engagement was also shown to be remarkably high, with teachers expressing strong satisfaction in their work, actively designing instruction, engaging in classroom interaction, and maintaining a healthy work-life balance. These positive indicators of engagement contribute significantly to an educational atmosphere where leadership is nurtured and sustained.

Correlation results affirm the deep interconnection between instructional leadership and both school culture and teaching engagement. Notably, collaborative leadership, unity of purpose, and professional development demonstrated very strong associations with leadership, while work-life balance stood out as a key teaching engagement factor closely linked to effective leadership practices.

The regression analysis further identifies the most impactful predictors of instructional leadership. Within school culture, professional development emerged as the most influential factor, followed by collaborative leadership and unity of purpose. From the teaching engagement dimensions, work-life balance showed the strongest predictive power, emphasizing the importance of teacher well-being in the exercise of leadership. Interestingly,

learning support and classroom interaction did not significantly predict instructional leadership in the model, suggesting that these areas may require integrated or contextual strategies to fully influence leadership outcomes.

This study highlights the importance of cultivating a professional environment defined by shared leadership, continuous learning, and teacher well-being. By prioritizing these core elements, schools in the Division of Bukidnon can build stronger instructional leadership frameworks that empower teachers and positively impact student learning. As educational challenges continue to evolve, fostering such a culture will be critical to ensuring teaching effectiveness and long-term success in the classroom.

Recommendation

Based on the findings of this research, it is recommended that school leaders in the Division of Bukidnon focus on strengthening instructional leadership through targeted professional development. The results revealed that Professional Development not only had a very strong correlation with Instructional Leadership ($r = .968$) but also emerged as its most significant predictor ($\beta = .274, p < .001$). Therefore, schools should prioritize regular, high-quality, and collaborative training programs aimed at enhancing teachers' instructional practices and leadership capacities. These can include workshops on evidence-based teaching strategies, coaching sessions, and leadership development seminars.

Another key recommendation is to promote collaborative leadership and unity of purpose within the school culture. Indicators such as Collaborative Leadership ($r = .985$), Teachers' Collaboration ($r = .957$), and Unity of Purpose ($r = .972$) were all significantly correlated with Instructional Leadership and were also predictive of its strength. School administrators should foster a culture where teamwork, shared decision-making, and collective responsibility are central. This can be achieved by organizing collaborative planning meetings, team teaching arrangements, and peer observation sessions, enabling teachers to share best practices and support each other professionally.

It is also essential for school leaders to support teachers' well-being by promoting work-life balance, which was found to be the most influential teaching engagement factor predicting instructional leadership ($\beta = 1.192, p < .001$). Implementing wellness initiatives, offering flexible time management strategies, and ensuring reasonable workloads can help teachers maintain a healthy balance, thereby encouraging sustained engagement and leadership potential. A school environment that prioritizes teacher well-being is more likely to cultivate motivated, effective, and innovative educators.

In addition, school leaders should actively engage with teachers and provide meaningful feedback. While factors like Job Satisfaction and Instructional Design showed complex relationships in the regression analysis, their significance suggests they should not be overlooked. Administrators should remain visible and approachable, establish regular feedback systems, and recognize teachers' efforts through both formal and informal channels. Creating a safe space for open communication and appreciation can enhance trust and inspire greater professional commitment.

Moreover, while Learning Support had a strong correlation with Instructional Leadership ($r = .947$), it did not significantly predict it in the regression model. Thus, it is recommended that learning support mechanisms be intentionally aligned with leadership strategies. This could involve ensuring that instructional leaders are directly involved in designing and implementing student support programs, integrating these efforts with broader instructional goals.

Finally, the findings indicate that Classroom Interaction had the weakest correlation ($r = .533$) and no significant predictive power. However, as classroom interaction remains a core component of teaching, further investigation is encouraged to explore how instructional leadership can better support teacher-student engagement. This may include classroom-based coaching, peer modeling, or establishing instructional rounds where leaders observe and provide formative feedback in real-time settings.

By implementing these recommendations, schools in the Division of Bukidnon can cultivate a strong instructional leadership framework—one that empowers teachers, strengthens school culture, and ultimately improves student learning outcomes.

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