Mediating role of cultural intelligence on the relationship between work well-being and Teaching competence of mathematics teachers

ABSTRACT

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| This study determined the mediating role of cultural intelligence on the relationship between work well-being and teaching competence of Mathematics teachers in selected secondary schools in the Province of Davao Occidental using descriptive-correlational research design with mediation modelling. Adapted survey questionnaires were administered to 117 Mathematics teachers. Data gathered were analyzed using mean, correlation analysis using Pearson r, and mediation analysis through the Sobel test. Results showed that the level of work well-being of Mathematics teachers was very high. Likewise, their level of cultural intelligence was high, with a very high level of teaching competence. Moreover, a significant moderate correlation was found between work well-being and cultural intelligence, between work well-being and teaching competence, and between cultural intelligence and teaching competence of Mathematics teachers. Finally, the result revealed significant partial mediation effect of the level of cultural intelligence on the relationship between work well-being and teaching competence of Mathematics teachers. Recommendations were made to maintain and enhance the high levels of work well-being, cultural intelligence, and teaching competence among high school Mathematics teachers. School leaders are urged to foster inclusive, supportive environments and invest in ongoing professional development focused on cultural intelligence, integrating these into school plans. Future research is also encouraged to expand the scope and use advanced methods to further explore the links among these key constructs. Original Research Article. |

*Keywords: cultural intelligence, work well-being, teaching competence, mediation analysis, Mathematics teachers*

1. INTRODUCTION

Teachers play a vital role not just in delivering lessons but in shaping the lives of learners. Beyond textbooks and exams, they help young people develop the knowledge, skills, and values needed to thrive in a complex world. Research shows that teachers influence not only academic outcomes, but also students’ identity formation, civic awareness, and ability to succeed in a globalized society (Soufghalem, 2024). Fulfilling this role, however, takes more than subject-matter expertise. In today’s increasingly diverse classrooms, teachers also need cultural intelligence, the capacity to connect with and support learners from different cultural and social backgrounds.

In an era defined by cultural mobility and global connectedness, expectations placed on teachers have expanded. They are called to lead inclusive classrooms, meet diverse learning needs, and, at the same time, care for their own well-being (Soufghalem, 2024). In the Philippines, these demands are deeply felt. Classrooms reflect a broad spectrum of ethnicities, languages, and socio-economic experiences. Teachers are now expected to go beyond traditional instruction to model empathy, adopt culturally inclusive practices, and respond with compassion and resilience (Arias-Pastor et al., 2023). In rural areas like Davao Occidental, these challenges become even more pronounced. Here, teachers are not only navigating cultural diversity, but also contending with emotional strain, limited resources, and the pressure to maintain high teaching standards (Duong et al., 2023; Garcia & Pantao, 2021).

Recent research highlights the importance of cultural intelligence as a key competency in such environments. Teachers with high cultural intelligence are more likely to create inclusive, collaborative, and respectful learning spaces (Katıtaş et al., 2024; Teneta-Skwiercz et al., 2022). But supporting students also means supporting teachers. Well-being is a critical factor in a teacher’s ability to perform effectively. When teachers are emotionally, physically, and mentally well, they are better equipped to implement practices that benefit all learners (Katsarou et al., 2023). Conversely, stress and burnout exacerbated by increasing workloads and lack of support undermine both teaching quality and classroom relationships (Avola et al., 2025; Duong et al., 2023).

Despite these efforts, many teachers in Davao Occidental particularly those teaching Mathematics still report feeling unprepared for the cultural complexities of their classrooms. They often struggle to bridge the gap between their well-being and their ability to connect with students across cultures. This reveals a significant research gap. While the roles of cultural intelligence and well-being have been studied individually, there is limited research on how these two factors intersect especially in the context of localized, subject-specific teaching like Mathematics. This study seeks to explore that intersection. Specifically, it investigates how cultural intelligence influences the well-being and teaching competence of Mathematics teachers in Davao Occidental. By addressing this gap, the study hopes to offer meaningful insights that can guide professional development, influence school policies, and strengthen support systems ultimately helping teachers create inclusive, responsive classrooms where all learners can thrive.

**2.** **OBJECTIVES**

This study determined the mediating role of cultural intelligence on the relationship between work well-being and teaching competence of Mathematics teachers in selected secondary schools in the Province of Davao Occidental.

Specifically, this study aimed to:

1. Describe the level of work well-being of high school Mathematics teachers, in terms of:

 1.1 Positivism;

 1.2 Job Satisfaction;

 1.3 Organizational Harmony; and

 1.4 Organizational Support.

2. Examine the level of cultural intelligence of high school Mathematics teachers, in terms of:

 2.1 Metacognitive Cultural Intelligence;

 2.2 Cognitive Cultural Intelligence;

 2.3 Motivational Cultural Intelligence; and

 2.4 Behavioral Cultural Intelligence.

3. Ascertain the level of teaching competence of high school Mathematics teachers, in terms of:

 3.1 Professional Knowledge;

 3.2 Professional Teaching;

 3.3 Personal and Professional Attributes; and

 3.4 Professional Communities.

4. Examine the significant relationship between the levels of work well-being and cultural intelligence of Mathematics teachers.

5. Examine the significant relationship between the levels of work well-being and teaching competence of Mathematics teachers.

6. Examine the significant relationship between the levels of cultural intelligence and competence of high school Mathematics teachers.

7. Examine whether the level of cultural intelligence significantly mediates the relationship between the levels of work well-being and teaching competence of high school Mathematics teachers.

3. MATERIALS AND METHODS

Research Design

This study used a descriptive-correlational survey research design. It is descriptive because it aimed to gather information about the current status of work well-being, cultural intelligence, and teaching competence among Mathematics teachers. It simply described the characteristics and conditions as they naturally occur.

At the same time, it is correlational because it examined the relationships between these variables without influencing them. The study aimed to determine whether there is a significant association among work well-being, cultural intelligence, and teaching competence. Mediation modeling was also employed to explain how cultural intelligence acts as a mediator between work well-being and teaching competence.

 **Research Instrument**

The research instruments used in this study were adapted from various authors. To obtain permission for the adapted instruments, the researcher contacted the original authors via email. A formal request was sent outlining the purpose of the study, the intended use of the instruments, and assurance of proper citation and ethical use. Responses granting permission were received, and documentation was kept for verification.

Part I of the survey questionnaire measured the level of cultural intelligence among Mathematics teachers. The questionnaire was adopted from the Cultural Intelligence Scale (CQS) by Yang (2012) and is composed of 20 statements, distributed across four dimensions: Metacognitive Cultural Intelligence with four statements, Cognitive Cultural Intelligence with six statements, Motivational Cultural Intelligence with five statements, and Behavioral Cultural Intelligence with five statements. Respondents answered using a five-point Likert scale, with 1 indicating "strongly disagree" and 5 indicating "strongly agree."

Part II of the survey questionnaire assessed the level of work well-being of high school teachers in the new normal, focusing on positivism, job satisfaction, organizational harmony, and organizational support. The questionnaire was patterned after the Well-Being at Work Scale by Demo and Paschoal (2016) and the Work-Related Wellbeing Questionnaire by Orsila et al. (2011), revised by Pradhan and Hati (2022). It consists of 26 statements: eight for positivism, six for job satisfaction, six for organizational harmony, and six for organizational support. Responses were recorded on a five-point Likert scale, with 5 indicating "strongly agree" and 1 indicating "strongly disagree."

Part III of the survey questionnaire evaluated the teaching competence of Mathematics teachers based on professional knowledge, professional teaching, personal and professional attributes, and professional communities. This section was adapted from the Southeast Asia Regional Standards for Mathematics Teachers (SEARS-MT) Survey Questionnaire developed by Tahir and Thien (2013) and included 37 items. Respondents answered using a five-point Likert scale, ranging from "strongly agree" (5) to "strongly disagree" (1).

To ensure the appropriateness of the questionnaire for the current context, the researcher conducted content and construct validation with selected experts in the field reviewing the instrument. Comments, recommendations, and suggestions provided by the experts were incorporated into the final version of the questionnaire. Since the instrument was adapted under a quantitative method, further expert validation was not required; hence, reliability testing was conducted instead. After validation, a pilot test was conducted to assess the instrument’s reliability by calculating the Cronbach’s alpha coefficient.

**Respondents of the Study**

The respondents of this study were Mathematics teachers from 15 public secondary schools across the five municipalities of Davao Occidental, selected through complete enumeration. Complete enumeration was used as the sampling technique because the target population was relatively small and accessible. This approach ensured that all eligible Mathematics teachers who met the criteria had the opportunity to participate in the study, thus improving the comprehensiveness and validity of the results.

A total of 117 Mathematics teachers participated as respondents, as shown in Table 1. These teachers were chosen based on the following criteria: (1) currently handling any Mathematics subject in either Junior or Senior High School; (2) having taught the subject for at least one year, regardless of sexual orientation, gender identity, educational attainment, civil status, religious affiliation, or ethnicity; and (3) willingness to participate as a respondent in the study.

In view of confidentiality and non-disclosure, each school was assigned a number code to represent its name. The data shown in Table 1 were obtained from the school records and coordination with school heads or focal persons, ensuring accuracy and completeness of the teacher population in each identified school.

Table 1. Sample Size Distribution of Mathematics Teachers in Selected Public Secondary Schools in the Province of Davao Occidental.

|  |  |  |
| --- | --- | --- |
|  | **NAME OF SCHOOLS** | **SAMPLE SIZE** |
| 1 | 001 | 5 |
| 2 | 002 | 6 |
| 3 | 003 | 3 |
| 4 | 004 | 6 |
| 5 | 005 | 7 |
| 6 | 006 | 7 |
| 7 | 007 | 3 |
| 8 | 008 | 15 |
| 9 | 009 | 16 |
| 10 | 010 | 9 |
| 11 | 011 | 8 |
| 12 | 012 | 19 |
| 13 | 013 | 3 |
| 14 | 014 | 4 |
| 15 | 015 | 6 |
|  | Total | 117 |

**Data Gathering**

In gathering the data for this study, the researcher followed a structured procedure to ensure proper documentation and adherence to ethical standards. A formal letter, along with an endorsement from the Dean of the Graduate School, was submitted to the Schools Division Superintendent of Davao Occidental to request permission to conduct the study. Following approval, the researcher sent endorsement letters, approval letters, and informed consent forms to the school heads of the identified secondary schools. These included: (1) a copy of the Superintendent's approval, (2) a letter of intent from the researcher, and (3) informed consent forms for the respondents. The researcher utilized several communication platforms, Facebook Messenger, official school email accounts, and SMS (text messaging) to share the survey links, depending on what was most accessible to the respondents. The online survey was created using Google Forms and made available for three weeks, with each respondent given up to 20 minutes to complete it. Periodic reminders were sent to maximize participation while maintaining voluntary engagement.

All responses were treated with strict confidentiality in compliance with research ethics. Survey data were automatically collected and compiled in Google Sheets linked to the form, then exported to Microsoft Excel for cleaning and organization. Backup copies were stored both on a secured USB drive and in a password-protected cloud storage account accessible only to the researcher. The data were tallied, collated, and tabulated to support clearer analysis. Visual representations such as charts and tables were created, and statistical analyses were conducted using Microsoft Excel and IBM SPSS Statistics software to ensure accuracy and reliability. The data collection, processing, and interpretation were completed within two months, ensuring the timely completion of the study.

4. results and discussion

**4.1 Level of Work Well-Being of High School Mathematics Teachers**

**Work Well-being (Positivism)**

The mean score for work well-being in terms of positivism was **4.35**, which is interpreted as **very high**. This result indicates that Mathematics teachers consistently demonstrate a strong sense of work well-being, particularly through a positive and optimistic outlook. These teachers frequently report experiencing both physical and mental well-being in the workplace, largely due to their positive attitudes toward professional responsibilities. This high level of positivism was particularly evident in indicators such as **maintaining a hopeful perspective despite challenges, showing enthusiasm for teaching tasks, and expressing gratitude for their role as educators**. These traits contribute to teachers' **resilience**, enabling them to manage stress, overcome setbacks, and sustain motivation in their teaching practices. As emphasized by **Edara et al. (2021)**, the optimistic outlook of Mathematics teachers significantly enhances their job satisfaction and overall well-being. Similarly, **Dong and Xu (2022)** found a strong correlation between teachers' optimism and their levels of commitment and engagement, showing that committed, optimistic educators are more effective and active in their instructional duties.

**The implications of these findings are multifaceted.** First, cultivating a school culture grounded in optimism can help mitigate burnout and work-related stress. Second, it highlights the importance of mental health initiatives and recognition programs that sustain teachers' positive mindset. Finally, teacher education and professional development programs should intentionally include components that foster **emotional resilience, optimism, and well-being**, which are crucial for long-term engagement and professional fulfillment. Promoting and supporting such attributes not only enhances teachers' personal wellness but also positively impacts student learning and school culture overall.

**Work Well-being (Job Satisfaction)**

Table 3 shows that the work well-being of high school Mathematics teachers in terms of job satisfaction received a mean rating of 4.35, which is interpreted as very high. This indicates that the teachers consistently experience fulfillment in their professional roles. They reported feeling mentally and physically well at work and expressed satisfaction with their current teaching assignments. A high level of job satisfaction often reflects a purposeful and engaging teaching experience, which is associated with strong professional relationships, intrinsic motivation, and a commitment to ongoing development. This result supports the findings of Pradhan and Hati (2022), who emphasized that employee well-being is shaped by factors such as positive affect, workplace support, and satisfaction with professional roles. Similarly, Cece et al. (2022) found that perceived support from school leaders and a strong sense of professional identity significantly contribute to teachers’ motivation and overall well-being.

The practical implications of these findings are significant for school leaders and policymakers. When teachers feel satisfied and supported, they are more likely to stay in their roles, engage students more effectively, and contribute to a positive school culture. Providing sufficient resources, fostering supportive relationships, and offering opportunities aligned with teachers’ personal and professional growth can sustain these high levels of well-being. Ultimately, prioritizing teacher well-being not only enhances educators’ experiences but also benefits student learning outcomes and the overall performance of educational institutions.

**Work Well-being (Organizational Harmony)**

As shown in Table 4, the mean rating for work well-being in terms of organizational harmony was 4.33, indicating a very high level of perceived harmony among Mathematics teachers. This suggests that teachers regularly experience a work environment marked by collaboration, mutual respect, and strong professional relationships. A harmonious workplace is essential for cultivating teamwork, reducing stress, and promoting a sense of belonging. This supports the findings of Ibrahim et al. (2020), who emphasized that individuals tend to show greater commitment and productivity when they feel supported within a positive organizational climate. Similarly, See et al. (2020) highlighted that harmonious working relationships enhance individual well-being, strengthen dedication to professional roles, and improve overall performance and productivity.

The practical implications of this result are particularly relevant for school administrators and policymakers. Fostering a harmonious school environment not only contributes to teacher well-being but also enhances engagement, collaboration, and long-term commitment. When organizational harmony is present, teachers are more motivated to manage challenges effectively, share best practices, and contribute to a healthy school culture. Promoting open communication, mutual trust, and supportive leadership practices is essential in sustaining this environment. Ultimately, strengthening organizational harmony can serve as a foundation for both professional satisfaction and improved student outcomes.

**Work Well-being (Organizational Support)**

Table 5 shows that the level of work well-being of high school Mathematics teachers in terms of organizational support received a mean score of 4.36, which is interpreted as very high. This means that teachers consistently feel supported in their work environment whether through access to professional development, adequate resources, supportive leadership, or emotional and mental health considerations. A very high rating in this area reflects more than just satisfaction; it suggests that teachers are being provided with the tools and conditions they need to thrive professionally. This finding echoes the work of Dabrowski (2021), who highlighted that consistent organizational support is key to maintaining teachers’ overall well-being. Similarly, Suppa (2019) emphasized the importance of supportive supervision from school leaders, and Cheng (2022) stressed that school-based management and strong internal mechanisms play a vital role in building effective and responsive school environments.

The practical importance of these findings is significant. When teachers feel genuinely supported by their schools, they’re more likely to stay motivated, feel valued, and maintain a strong commitment to their profession. This can lead to higher teacher retention, improved morale, and more effective teaching practices all of which directly impact student learning. Supportive environments foster trust, reduce stress, and give teachers the confidence to innovate and grow. For school leaders, this means that investing in meaningful support systems such as mentoring, accessible communication channels, workload balance, and recognition of effort is not just beneficial but essential. In the long run, strong organizational support contributes to a more resilient, satisfied, and effective teaching workforce.

**Work Well-being (Overall):** The grand mean score of 4.35 indicates that Mathematics teachers consistently experience a high level of work well-being. This reflects a workplace environment where teachers feel positive, supported, and fulfilled in their roles. They report feeling motivated, emotionally balanced, and satisfied with their professional experiences. A high sense of well-being in the workplace not only enhances day-to-day morale but also encourages personal growth and long-term commitment. This supports the findings of Pael (2020), who noted that teachers with good health practices tend to maintain high level of well-being. However, the contrast presented by Billote et al. (2022) highlights how COVID-19 pandemic impacted many teachers’ mental health leading to moderate levels of anxiety and stress. Similarly, Lugue and Galicia (2021) pointed out that the uncertainty during crisis can lower well-being to average levels. In light of this, Ortillo and Ancho (2021) emphasize the need to proactively design wellness programs not only for teachers’ physical health, but also for their emotional and professional wellness.

These findings underline the importance of maintaining supportive, stable, and responsive work environments. While the current results show a high level of well-being, they also serve as a reminder that external crises such as a pandemic can quickly shift the mental and emotional landscape for teachers. School administrators and education stakeholders should prioritize wellness initiatives, psychological support, and open dialogue to help teachers navigate challenges more effectively. By sustaining high levels of well-being, teachers are more likely to stay engaged, perform better, and build meaningful connections with students. In turn, this contributes to healthier, more productive schools where both teachers and learners can thrive.

**Table 2. Level of Work Well-being of High School Mathematics Teachers**

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicators** | **Mean** | **SD** | **Description** |
| Positivism | 4.35 | 0.38 | Very High |
| Job Satisfaction | 4.35 | 0.38 | Very High |
| Organizational Harmony | 4.33 | 0.33 | Very High |
| Organizational Support | 4.36 | 0.37 | Very High |
| **Work Well-Being (Overall)** | **4.35** | **0.31** | **Very High** |

**4.2 Cultural Intelligence of High School Mathematics Teachers**

**Cultural Intelligence in terms of Metacognitive**

The mean rating for the level of cultural intelligence of high school Mathematics teachers in terms of metacognitive cultural intelligence is 4.02, which is considered high. This suggests that teachers frequently demonstrate cultural self-awareness and the ability to reflect critically on their own assumptions, biases, and perspectives. They are mindful of how their cultural background influences their interactions and are open to adjusting their thinking in response to diverse classroom dynamics. This finding aligns with the work of Wang and Goh (2020), who describe metacognitive cultural intelligence as the awareness and control individuals have over their cultural knowledge and thought processes when engaging in cross-cultural situations. It reflects a deep understanding of how to navigate complexity in multicultural settings with both strategic thought and emotional sensitivity. Ang (2021) further explains that metacognitive cultural intelligence enables individuals to interpret intercultural experiences with intentionality, using reflection as a foundation for meaningful engagement.

The practical value of this result is especially relevant in today’s increasingly diverse educational landscape. Teachers who exhibit strong metacognitive cultural intelligence are better equipped to create respectful, inclusive, and equitable classrooms. They are more likely to anticipate and respond to the cultural needs of their students, adapt instructional strategies accordingly, and foster a climate where all learners feel seen and supported. For educational leaders and policymakers, these findings underscore the need to embed cultural intelligence training into professional development initiatives. When teachers are equipped to reflect on their cultural lenses and engage across differences with purpose, schools become more inclusive, adaptive, and responsive to the needs of a diverse student population.

**Cultural Intelligence in terms of Cognitive**

The level of cultural intelligence of high school Mathematics teachers in terms of cognitive cultural intelligence, as shown in Table 3, received a mean rating of 3.68, which is considered high. This indicates that teachers generally possess strong knowledge and understanding of cultural values, norms, and practices. Such cognitive competence suggests that they are able to recognize and process cultural differences, helping them communicate and respond more effectively in multicultural classrooms. These findings support the study of Figueroa and Hofhuis (2024), who found that cultural intelligence can be significantly enhanced through intercultural training especially for individuals with multicultural personality traits. Their research emphasizes how background, exposure, and individual openness can shape the way teachers absorb and apply cultural knowledge. Likewise, Jurásek and Wawrosz (2024) highlighted that individual with high cognitive cultural intelligence are more adept at adjusting in multicultural environments, helping them build stronger connections and lead more inclusive practices.

The practical value of these findings is evident in how cognitive cultural intelligence supports teachers in addressing the diverse needs of their learners. With a solid foundation of cultural knowledge, teachers can design more relevant, inclusive lessons, reduce cultural misunderstandings, and promote acceptance in the classroom. This helps foster a learning environment where all students feel respected and understood. For school leaders and education stakeholders, the implication is clear: building cognitive cultural intelligence should be an essential part of teacher training and development. When teachers are equipped with the right cultural insights, they become not just educators, but facilitators of equity and global citizenship in today’s diverse learning environments.

**Cultural Intelligence in terms of Motivational**

The level of cultural intelligence of high school Mathematics teachers in terms of motivational cultural intelligence received a mean rating of 3.96, which is categorized as high. This suggests that these teachers often show strong interest and willingness to engage in cross-cultural experiences. They are motivated not only to learn about different cultures but also to adapt their behavior in ways that foster better communication and understanding in diverse settings. This internal drive is a key component of their ability to work effectively in multicultural classrooms. The results support the insights of Ang (2021), who explained that motivational cultural intelligence reflects a person’s drive and persistence to function effectively in culturally diverse environments and embrace the growth that comes with intercultural engagement. Similarly, Tesfaye et al. (2025) found that teachers who demonstrate higher levels of motivational cultural intelligence also tend to report greater confidence in academic and professional settings highlighting a connection between cultural motivation and self-efficacy.

From a practical standpoint, these findings carry significant value for teacher development and school improvement. Teachers who are highly motivated to engage with cultural diversity are more likely to build inclusive relationships with students, tailor their teaching methods to diverse needs, and actively participate in intercultural collaboration. Their enthusiasm for cross-cultural learning helps create classrooms that celebrate diversity and foster respect among students. For school leaders, this underscores the importance of nurturing and sustaining teachers’ intrinsic motivation through inclusive school cultures, opportunities for cross-cultural engagement, and recognition of culturally responsive practices. Investing in motivational aspects of cultural intelligence doesn't just benefit the teachers it transforms the entire learning environment into one that values equity, empathy, and global awareness.

**Cultural Intelligence in terms of Behavioral**

As shown in the table, the mean rating for the level of cultural intelligence of high school Mathematics teachers in terms of behavioral cultural intelligence is 3.81, which is considered high. This means that teachers frequently demonstrate behaviors that are culturally adaptive and appropriate. They are able to modify their actions, language, tone, gestures, and body language when interacting with individuals from different cultural backgrounds. This ability to adjust behavior in response to cultural context allows them to build better relationships, avoid misunderstandings, and support inclusive communication in the classroom. According to Ang (2021), behavioral cultural intelligence is key in bridging cultural gaps because it enables individuals to respond flexibly and respectfully in unfamiliar cultural environments. Chu and Zhu (2023) similarly noted that individuals with strong behavioral and cultural intelligence tend to adjust more effectively to culturally diverse environments, thanks in part to their psychological resilience and ability to manage unfamiliar social cues.

In practical terms, this aspect of cultural intelligence plays a vital role in classroom success and student engagement. Teachers who can adapt their behavior in culturally sensitive ways create more inclusive and welcoming spaces for all learners. Their ability to read and respond to cultural cues helps reduce friction, build trust, and establish positive learning environments. For educational institutions, this highlights the importance of training teachers not just in knowledge and awareness, but in observable, flexible behaviors that accommodate diversity. Promoting behavioral cultural intelligence ensures that teaching practices reflect both respect for differences and a commitment to equity making classrooms more effective, responsive, and empowering for every student.

**Cultural Intelligence in terms of Overall**

The overall mean rating of 3.87 indicates that cultural intelligence is frequently demonstrated among high school Mathematics teachers. This suggests they understand diverse cultures, use culturally responsive strategies, communicate effectively across cultures, build positive relationships, and work well in diverse teams. These findings support Rajaram’s (2023) claim that cultural intelligence enables effective cross-cultural functioning and promotes inclusive environments.

All cultural intelligence indicators were rated high, with mean scores of 4.02 (metacognitive), 3.96 (motivational), 3.81 (behavioral), and 3.68 (cognitive). This underscores the need for inclusive classrooms that foster students’ academic and socio-emotional growth and global readiness. Sternberg et al. (2021) further emphasize that culturally intelligent teachers manage diverse classrooms more effectively, addressing differences in race, language, ethnicity, and nationality.

**Table 3.** Level of Cultural Intelligence of High School Mathematics Teachers

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicators**  | **Mean** | **SD** | **Description** |
| 1. Metacognitive Cultural Intelligence  | 4.02 | 0.53 | High |
| 2. Cognitive Cultural Intelligence  | 3.68 | 0.55 | High |
| 3. Motivational Cultural Intelligence  | 3.96 | 0.50 | High |
| 4. Behavioral Cultural Intelligence  | 3.81 | 0.51 | High |
| **Overall Mean** | **3.87** | **0.42** | **High** |

**4.3 Teaching Competence of High School Mathematics Teachers**

**Teaching Competence in terms of Professional Knowledge**

The level of teaching competence of high school Mathematics teachers in terms of professional knowledge received a mean rating of 4.42, which is described as outstanding. This indicates that their teaching performance consistently exceeds expectations and reflects advanced proficiency across multiple professional indicators. These teachers demonstrate strong mastery of content, plan their lessons with care, and apply differentiated strategies to support diverse learning needs. Their ability to assess students effectively, address misconceptions, and foster both creative and critical thinking showcases a deep understanding of their subject and of effective pedagogy. This aligns with the Philippine Professional Standards for Teachers (PPST), which emphasize mastery of content, instructional planning, classroom assessment, and learning environment design as key competencies for effective educators. These findings also support the work of Rajaram (2023), who noted that cultural intelligence and professional knowledge go hand in hand in creating meaningful, adaptive learning experiences. Likewise, Figueroa and Hofhuis (2024) emphasized that individual personality traits and intercultural awareness significantly influence how teachers acquire, develop, and apply subject expertise in increasingly diverse classrooms.

From a practical perspective, these results reinforce the importance of continuously nurturing teachers’ professional knowledge. Educators who possess a strong foundation in their subject area and who remain committed to learning are better equipped to create rich, engaging, and inclusive educational experiences. Their expertise allows them to adapt instruction to fit the needs of varied learners and to respond flexibly in real-time classroom situations. For school leaders and policymakers, this underlines the value of sustained, content-specific professional development and support systems that help teachers refine their craft. When teachers are empowered to build on their strengths and deepen their knowledge, they not only improve student outcomes but also contribute to a positive, forward-thinking school culture that values excellence and growth.

**Teaching Competence in terms of Professional Teaching**

As shown in Table 4, the level of teaching competence of high school Mathematics teachers in terms of professional teaching received a mean rating of 4.34, which is interpreted as outstanding. This means that teachers regularly exceed expectations and consistently demonstrate high-level teaching practices aligned with national standards. Their behavior reflects initiative, self-motivation, and professionalism in various aspects of instruction. These teachers effectively use a wide range of instructional strategies, manage classrooms with confidence, and integrate technology to enhance learning. Their approach is student-centered, allowing them to adapt to diverse learning needs through differentiated instruction and meaningful feedback. They also foster strong teacher-student relationships and actively participate in continuous professional development. These findings align with the conclusions of Edara et al. (2021) and are further supported by Chu and Zhu (2023), who emphasized that competent teaching involves not only delivering lessons but also adapting to diverse learners and maintaining resilience in challenging educational contexts.

From a practical standpoint, these results highlight the importance of supporting and sustaining high-quality teaching practices through ongoing professional development and school-based mentorship. Teachers who demonstrate outstanding competence contribute to positive student outcomes by creating inclusive, engaging, and responsive classrooms. Their commitment to excellence sets a standard that positively influences their peers and the wider school culture. For school leaders and education policymakers, the implication is clear: investing in professional growth opportunities, encouraging reflective practice, and recognizing teaching excellence are key to sustaining high standards. When teachers are empowered and supported to grow in their profession, the ripple effect reaches students, families, and the broader educational system fostering environments where both teachers and learners can thrive.

**Teaching Competence in terms of Professional Attributes**

As shown in the table, the level of teaching competence of high school Mathematics teachers in terms of professional attributes revealed a mean rating of 4.40, which is categorized as outstanding. This suggests that teachers consistently exhibit high-level performance in essential personal and interpersonal traits that contribute to their effectiveness. These educators demonstrate initiative, self-direction, and professional autonomy in the classroom. Beyond subject expertise, they show strong communication skills, empathy, adaptability, leadership, and a passion for teaching. Their reflective practice and collaborative mindset also support a school culture of continuous improvement. These results align with Stronge’s (2018) view that 21st-century teachers must not only possess strong instructional skills but also demonstrate personal qualities that support learner-centered practices. Similarly, Burton (2024) emphasized that professional attributes particularly adaptability, leadership, and reflection play a vital role in improving instructional effectiveness and creating lasting connections with students.

The practical implications of these findings are far-reaching. Teachers who embody these professional attributes become role models for students, foster inclusive and nurturing learning environments, and build strong relationships that support student engagement and growth. These personal qualities help educators respond effectively to challenges, adapt to changing classroom needs, and contribute positively to the broader school culture. For school leaders, the results underscore the importance of promoting teacher well-being, professional identity, and opportunities for collaboration. Recognizing and nurturing these professional attributes through mentoring, reflection, and professional learning communities can help sustain high levels of teacher performance. Ultimately, fostering these traits ensures that educators not only teach content effectively but also inspire, support, and uplift the students they serve.

**Teaching Competence in terms of Professional Communities**

The level of teaching competence of high school Mathematics teachers in terms of professional communities received a mean score of 4.36, which is categorized as outstanding. This suggests that teachers consistently exceed expectations and actively contribute to their schools and broader professional networks. Their engagement reflects high levels of self-motivation, initiative, and collaboration. Teachers in this category often participate in learning communities, share best practices, engage in reflective dialogue with peers, and pursue continuous professional development. These activities enhance not only their individual competence but also the collective growth of the educational community. This result supports the findings of Schlaegel et al. (2021), who emphasized that active involvement in professional communities helps educators maintain ethical practice, broaden their expertise, and adapt effectively to evolving educational demands.

The practical importance of these findings lies in the transformative potential of strong professional learning communities. When teachers regularly collaborate and exchange insights, they contribute to a more dynamic, responsive, and supportive teaching environment. This kind of engagement fosters innovation, boosts morale, and builds a sense of shared purpose across the school. It also empowers teachers to take on leadership roles, mentor colleagues, and become advocates for effective teaching and policy reform. For school leaders and policymakers, the implication is clear: supporting structures that promote collaboration such as professional learning teams, subject-based organizations, and peer coaching programs can significantly enhance teacher competence and school-wide performance. Investing in these communities is not just a professional courtesy; it’s a strategic move toward sustainable educational improvement.

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**Teaching Competence in terms of Overall**

The overall mean rating of 4.38 indicates that the teaching competence of high school Mathematics teachers is outstanding. This suggests they consistently demonstrate excellence in professional knowledge, instructional delivery, classroom management, and engagement with professional learning. Their ability to adapt teaching strategies, reflect on their practice, and contribute to collaborative environments illustrates a well-rounded approach to effective teaching. Rajaram (2023) highlights that teaching competence involves not just mastery of content, but also adaptability and cultural awareness, qualities that empower educators to meet the evolving demands of diverse classrooms.

Figueroa and Hofhuis (2024) further emphasize that intercultural competence and personality traits significantly influence how teachers approach learning environments. When teachers bring strong personal and professional attributes into the classroom, they foster inclusive, responsive, and high-performing learning spaces. These findings underscore the importance of sustained professional development and supportive school cultures that encourage reflective practice and innovation. Ultimately, teaching competence is not only a measure of skill, but a reflection of commitment to meaningful, student-centered education.

**Table 4.** Level of Teaching Competence of High School Mathematics Teachers

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicators** | **Mean** | **SD** | **Description** |
| 1. Professional Knowledge  | 4.42 | 0.33 | Outstanding |
| 2. Professional Teaching  | 4.34 | 0.35 | Outstanding |
| 3. Professional Attributes  | 4.40 | 0.37 | Outstanding |
| 4. Professional Communities  | 4.36 | 0.39 | Outstanding |
| **Overall Mean** | **4.38** | **0.31** | **Outstanding** |

**Relationship Between the Levels of Work Well-Being and Cultural Intelligence of Mathematics Teachers**

Table 5 presents the results of the test of the relationship between work well-being and cultural intelligence among high school Mathematics teachers. A moderate positive correlation was found between cultural intelligence and positivism (r = 0.479, P = 0.000), as well as job satisfaction (r = 0.440, P = 0.000). This suggests that as teachers' sense of positivism and job satisfaction increases, their levels of cultural intelligence also tend to improve. Since the p-values are below the 0.05 significance level, the null hypotheses are rejected, indicating statistically significant relationships. In addition, low positive correlations were observed between cultural intelligence and both organizational harmony (r = 0.298, P = 0.002) and organizational support (r = 0.365, P = 0.000). These findings imply that improvements in the school environment such as harmonious working relationships and a strong sense of support are associated with slight enhancements in teachers’ cultural intelligence. These relationships are also statistically significant, affirming the role of school climate in fostering teacher adaptability.

Overall, the r-value of 0.460 indicates a moderate positive relationship between the level of work well-being and cultural intelligence among high school Mathematics teachers. With a p-value of 0.000, the relationship is statistically significant, and the null hypothesis is rejected. This moderate positive relationship suggests that as teachers experience greater well-being through increased positivity, job satisfaction, harmony, and support their ability to understand, adapt to, and interact effectively across cultures also improves. A positive and emotionally healthy work environment enables teachers to cultivate the cognitive, motivational, and behavioral components of cultural intelligence, which are essential for inclusive and culturally responsive teaching practices.

These findings reinforce previous research. Li and Middlemiss (2022) and Yang and Chang (2017) demonstrated that teacher well-being positively influences their capacity to engage in culturally intelligent practices. Teachers who feel emotionally supported and valued are more likely to participate in inclusive, student-centered interactions. Ang (2021) further emphasized that cultural intelligence is not only cognitive but also driven by motivation and behavior, both of which are shaped by the psychological well-being of the individual. Figueroa and Hofhuis (2024) also highlighted how personality traits and emotional stability influence the development of cultural intelligence, supporting the link between individual well-being and intercultural adaptability.

**Table 5.** Relationship Between the Levels of Work Well-Being and Cultural Intelligence of Mathematics Teachers.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Indicators** | **R-Value** | **Description** | **P-Value** | **Interpretation** |
| Positivism  | 0.479 | Moderate Correlation | 0.000 | Significant |
| Job Satisfaction  | 0.440 | Moderate Correlation | 0.000 | Significant |
| Organizational Harmony  | 0.298 | Low Correlation | 0.002 | Significant |
| Organizational Support | 0.365 | Low Correlation | 0.000 | Significant |
| **Overall Mean** | **0.460** | **Moderate Correlation** | **0.000** | **Significant** |

**4.4 Relationship Between the Levels of Work Well-Being and Teaching Competence of Mathematics Teachers**

Table 6 presents the relationship between work well-being and teaching competence among high school Mathematics teachers. A low positive correlation was found between positivism and teaching competence (r = 0.393, P = 0.000), suggesting that higher levels of optimism are associated with slight improvements in teaching competence. Since the p-value is below 0.05, the relationship is statistically significant.

Moderate positive correlations were observed between teaching competence and the following work well-being factors: job satisfaction (r = 0.537, P = 0.000), organizational harmony (r = 0.510, P = 0.002), and organizational support (r = 0.502, P = 0.000). These results indicate that as teachers feel more satisfied, supported, and work in a harmonious environment, their teaching competence improves moderately. All relationships are statistically significant. This suggests that a school culture promoting emotional wellness, collaboration, and effective leadership can significantly enhance teachers' professional capacity. Educators who work in a positive environment are more likely to deliver high-quality instruction, manage classrooms effectively, and respond to student needs with adaptability and care demonstrating strong teaching competence.

The overall Pearson r value of 0.574 confirms a moderate positive relationship between the general level of work well-being and teaching competence (P = 0.000). Thus, the null hypothesis is rejected, affirming that higher work well-being significantly contributes to better teaching competence among high school Mathematics teachers. Promoting teacher well-being should therefore be viewed not only as a supportive gesture but also as a strategic approach to improving educational outcomes. When teachers are emotionally and mentally healthy, their professional abilities are maximized, leading to more effective teaching and enhanced learning experiences for students.

These findings support the longitudinal research of Cece et al. (2022), which showed that perceived support from school principals and a strong professional identity significantly predict teachers’ motivation and overall well-being—factors closely linked with teaching effectiveness. Avola et al. (2025) similarly emphasized the importance of institutional interventions aimed at addressing burnout and emotional fatigue, highlighting their long-term benefits for both performance and teacher retention. In addition, Katsarou et al. (2023) found that during times of disruption, such as the COVID-19 pandemic, teachers' well-being was critical to maintaining instructional quality and demonstrating resilience. The implications of these results suggest that education leaders and policymakers should integrate well-being initiatives into school improvement strategies. These may include mentoring programs, recognition and incentive systems, balanced workloads, professional development tailored to teacher needs, and wellness policies that support both physical and emotional health. Promoting teacher well-being is not only a moral responsibility, it is fundamental to enhancing teaching competence and ensuring high-quality education for all learners.

**Table 6.** Relationship Between the Levels of Work Well-Being and Teaching Competence of Mathematics Teachers.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Indicators** | **R-Value** | **Description** | **P-Value** | **Interpretation** |
| Positivism  | 0.393 | Low Correlation | 0.000 | Significant |
| Job Satisfaction  | 0.537 | Moderate Correlation | 0.000 | Significant |
| Organizational Harmony  | 0.510 | Moderate Correlation | 0.002 | Significant |
| Organizational Support | 0.502 | Moderate Correlation | 0.000 | Significant |
| **Overall Mean** | **0.574** | **Moderate Correlation** | **0.000** | **Significant** |

**4.5 Relationship Between the Levels of Cultural Intelligence and Teaching Competence of High School Mathematics Teachers**

Table 7 presents the relationship between cultural intelligence and teaching competence among high school Mathematics teachers. A moderate positive correlation was found between metacognitive cultural intelligence and teaching competence (r = 0.552, P = 0.000), indicating that increased cultural awareness and reflective thinking are associated with improved teaching competence. Similarly, motivational cultural intelligence also showed a moderate correlation (r = 0.557, P = 0.002), suggesting that teachers with a strong drive to engage across cultures demonstrate higher teaching competence.

In contrast, low positive correlations were observed for cognitive (r = 0.368, P = 0.000) and behavioral (r = 0.363, P = 0.000) dimensions of cultural intelligence, indicating that knowledge and culturally adaptive behavior contribute to teaching competence to a lesser extent, but remain statistically significant. This implies that while factual knowledge about different cultures and the ability to adjust behavior in multicultural situations are beneficial, they may not independently drive competence as strongly as reflective thinking and motivation do. Teachers who are more aware of cultural dynamics and are internally driven to engage across cultures tend to demonstrate stronger instructional capabilities. These results highlight the importance of focusing not only on what teachers know or do culturally, but also on how they think and feel about engaging with diverse learners.

The overall Pearson r value of 0.587 reflects a moderate positive relationship between the levels of cultural intelligence and teaching competence. With all P-values below 0.05, the null hypotheses are rejected, confirming that cultural intelligence significantly influences the teaching competence of high school Mathematics teachers. Yang and Chang (2022) emphasized that cultural diversity is now an everyday reality for teachers, and the ability to connect with students from diverse backgrounds is central to instructional effectiveness. Katıtaş et al. (2024) similarly concluded that teachers with higher cultural intelligence especially those who exhibit intercultural sensitivity are more likely to adopt multicultural education practices that improve learner engagement and classroom inclusivity.

The implications of these findings suggest that professional development programs should emphasize cultivating the metacognitive and motivational aspects of cultural intelligence. Teacher training should go beyond factual knowledge and behavior modeling to encourage self-reflection, cultural awareness, and personal commitment to inclusivity. School leaders and policymakers are encouraged to integrate cultural intelligence training into teacher education and in-service programs as a core strategy to strengthen instructional competence, particularly in culturally diverse learning environments.

**Table 7.** Relationship Between the Levels of Cultural Intelligence and Competence of High School Mathematics Teachers.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Indicators** | **R-Value** | **Description** | **P-Value** | **Interpretation** |
| Metacognitive Cultural Intelligence | 0.552 | Moderate Correlation | 0.000 | Significant |
| Cognitive Cultural Intelligence | 0.368 | Low Correlation  | 0.000 | Significant |
| Motivational Cultural Intelligence | 0.557 | Moderate Correlation | 0.002 | Significant |
| Behavioral Cultural Intelligence | 0.363 | Low Correlation | 0.000 | Significant |
| **Overall Mean** | **0.587** | **Moderate Correlation** | **0.000** | **Significant** |

**4.6 Mediation Effect of Cultural Intelligence on the Relationship Between the Levels of Work Well-Being and Teaching Competence of High School Mathematics Teachers**

Table 8 presents the mediation analysis examining the role of cultural intelligence in the relationship between work well-being and teaching competence among high school Mathematics teachers. The results show that work well-being significantly influences cultural intelligence, with a regression coefficient of 0.80 (P < 0.05), indicating that a one standard deviation increase in work well-being corresponds to a 0.80 increase in cultural intelligence. In turn, cultural intelligence significantly affects teaching competence, with a regression coefficient of 0.24 (P < 0.05), suggesting that higher levels of cultural intelligence are associated with improved teaching competence.

These findings align with those of Li and Middlemiss (2022), Yang and Chang (2022), and Katıtaş et al. (2024), who emphasized that well-being and cultural intelligence are deeply intertwined, and both contribute significantly to teaching performance. Culturally intelligent teachers are more adaptive, reflective, and inclusive, enabling them to navigate complex classroom dynamics and promote a healthy and equitable learning environment. Cece et al. (2022) and Avola et al. (2025) also support this view, asserting that support from leadership and emotional resilience bolster teachers’ cultural competence and their ability to engage with students from diverse backgrounds.

Moreover, the total effect which is the sum of both direct and indirect effects has a regression coefficient of 0.71, with an indirect effect of 0.19. The ratio index, calculated by dividing the indirect effect by the total effect (0.19 ÷ 0.71), is 26.76%. This indicates that approximately 26.76% of the total effect of work well-being on teaching competence is mediated through cultural intelligence, while the remaining 73.24% represents the direct effect. These results confirm that while work well-being directly enhances teaching competence, a meaningful portion of its impact operates through the development of cultural intelligence.

The implications of these findings are significant for school leaders and policymakers. While direct support for teacher well-being is essential, it is equally important to foster the growth of cultural intelligence through targeted interventions. Professional development programs that emphasize reflective cultural awareness, intercultural communication, and inclusive pedagogy may amplify the impact of well-being on teaching competence. Strengthening both domains concurrently can create a more responsive, empowered, and effective teaching workforce capable of addressing the diverse needs of today’s learners.

**Table 8.** Mediation Effect Analysis of Cultural Intelligence on the Relationship Between the Levels of Work Well-Being and Teaching Competence of High School Mathematics Teachers.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | Estimates | SE | Critical Ratio | Lower CI | Upper CI |
| **Indirect Effect** | 0.19\* | 0.06 | 3.17 | 0.09 | 0.31 |
| Work Well-Being ⟶ Cultural Intelligence  | 0.80\* | 0.11 | 7.27 | 0.58 | 1.02 |
| Cultural Intelligence ⟶ Teaching Competence | 0.24\* | 0.06 | 4.00 | 0.13 | 0.36 |
| **Direct Effect** |  |  |  |  |  |
| Work Well-Being ⟶ Teaching Competence | 0.52\* | 0.08 | 6.50 | 0.36 | 0.67 |
| **Total Effects** | **0.71\*** | **0.07** | **10.14** | **0.57** | **0.84** |

Legend: \*p<0.05; SE=Standard Error; CI= Confidence Interval

Since the direct effect of work well-being (IV) on the teaching competence (DV) of high school Mathematics teachers is nonzero and statistically significant, the mediation exhibited by cultural intelligence is classified as partial mediation. This result implies that work well-being remains a significant predictor of teaching competence. However, the teachers' level of cultural intelligence also has a substantial influence on their competence. Therefore, by consistently nurturing and strengthening cultural intelligence, the teaching competence of high school Mathematics teachers can be further enhanced, reinforcing the positive impact of work well-being on teaching performance.

Cultural Intelligence

0.80 (0.11)

0.24 (0.06)

Work Well-Being

Teaching Competence

0.52 (0.80)

**Figure 1.** The Mediating Effect of Cultural Intelligence on the Relationship Between Work

Well-Being and Teaching Competence of High School Mathematics Teachers.

To check whether the mediation exists and is significant, the Sobel Test was employed, with results presented in Table 9. The analysis revealed an indirect effect of work well-being on cultural intelligence (0.80, SE = 0.11), and of cultural intelligence on teaching competence (0.24, SE = 0.06). Since the p-value is less than 0.05, the null hypothesis is rejected, confirming that cultural intelligence significantly mediates the relationship between work well-being and teaching competence among high school Mathematics teachers, as illustrated in Figure 1.

This finding suggests that a deeper understanding of cultural contexts, improved communication and connection with students, culturally responsive instructional strategies, increased empathy and sensitivity, and a strong focus on equity and inclusion all contribute to enhanced teaching competence. Emphasizing the development of cultural intelligence among Mathematics teachers can significantly improve their effectiveness in multicultural classrooms, ultimately leading to better learning outcomes for students.

From a practical standpoint, these findings underscore the importance of designing teacher development programs that simultaneously address emotional well-being and intercultural competence. School leaders and policymakers should provide structured opportunities for teachers to reflect on their cultural awareness, engage in inclusive pedagogical training, and participate in wellness initiatives that support their mental and emotional health. Activities such as intercultural dialogues, peer mentoring, and psychosocial support systems can strengthen the conditions that lead to increased cultural intelligence and teaching effectiveness. By addressing these dimensions in tandem, schools can cultivate a teaching workforce that is not only professionally competent but also resilient, reflective, and inclusive.

These results are consistent with the findings of Li and Middlemiss (2022), who emphasized that cultural intelligence enhances individuals’ adaptability and interpersonal effectiveness across diverse cultural contexts. Tzu-Ping and Chang (2022) similarly reported that cultural intelligence is positively associated with psychological well-being, particularly when moderated by mindfulness. Yang and Chang (2022) found that metacognitive and motivational dimensions of cultural intelligence are strong predictors of well-being, supporting its role as a bridge between emotional health and professional competence. Furthermore, Schlaegel et al. (2021) demonstrated that cultural intelligence mediates the relationship between personality traits and work-related outcomes, offering strong predictive value for performance in multicultural settings.

**Table 9.** Summary of the Sobel test of Mediation

|  |  |  |  |
| --- | --- | --- | --- |
| **Indirect Effect** | **Estimates** | **SE** | **P-value** |
| Work Well-Being ⟶ Cultural Intelligence | 0.80 | 0.11 | 0.000 |
| Cultural Intelligence ⟶ Teaching Competence | 0.24 | 0.06 |

1. **CONCLUSIONS AND RECOMMENDATIONS**
	1. Conclusion

Based on the findings presented, the following are the conclusions drawn:

1. The level of work well-being among high school Mathematics teachers was found to be **very high**, indicating their consistent positive experiences in the workplace.

2. The teachers demonstrated a **high level of cultural intelligence**, suggesting a deep understanding of the diverse cultural backgrounds of their learners.

3. The **teaching competence** of high school Mathematics teachers was rated as **outstanding**, reflecting their high proficiency across key performance indicators.

4. **Significant moderate correlations** were identified between work well-being and cultural intelligence, work well-being and teaching competence and cultural intelligence and teaching competence.

5. **Cultural intelligence** was found to **partially mediate** the relationship between work well-being and teaching competence, indicating that it plays a meaningful role in enhancing the effect of well-being on teaching effectiveness.

* 1. Recommendations

1. Since the level of work well-being of high school Mathematics teachers was very high, it is essential to maintain and enhance this positive work environment. School heads therefore are encouraged to build a supportive and collaborative culture where teachers feel valued, respected, and motivated. Likewise, teachers may provide opportunities for professional growth, recognize their efforts, and prioritize their well-being.

2. Though teachers exhibited a high level of cultural intelligence, school heads are encouraged to continue investing in cultural intelligence training and development as well as offer workshops, seminars, or professional development programs that focus on developing further the cultural intelligence of teachers. This will enable them to effectively engage with the culturally diverse student populations and promote inclusive teaching practices. Also, teachers may intensify their understanding on the impact of socio-cultural contexts in teaching and learning, and they may exhaust all means to ensure personal growth and professional development focusing on improving their cultural intelligence.

3. With the outstanding level of competence among high school Mathematics teachers, they may continually engage in workshops, conferences, or collaborative learning experiences to enhance their pedagogical skills, content knowledge, and instructional strategies. Also, they are encouraged to stay updated with the latest research and best practices in mathematics education. Aside from that, they may also be motivated to promote a positive work environment that values diversity, fosters cultural awareness, and encourages intercultural communication.

4. The results showed that cultural intelligence exhibited a significant mediation effect on the relationship between the levels of work well-being and teaching competence of high school Mathematics teachers. Hence, propagating better the cultural intelligence of teachers may be considered in crafting the Learning and Development Plan as well as the School Improvement Plan to maximize teachers’ work well-being and consequently improve their competence in the teaching profession.

5. Further studies may be conducted by future students and professional researchers to explore further the interplay of cultural intelligence, work well-being, and teaching competence of Mathematics teachers with a wider scope and an increased number of respondents. They may utilize structural equation modelling to include other variables that may affect the competence of high school Mathematics teachers.

**CONSENT**

With university or international standards, the author(s) have gathered and kept the participants’ written consent.

**Ethical Approval:**

As per international standards or university standards written ethical approval has been collected and preserved by the author(s).

**DISCLAIMER (ARTIFICIAL INTELLIGENCE)**

The author(s) of this manuscript hereby certify that the use of generative AI technology was limited to improving the composition of sentences and paragraphs and checking for grammar.

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