

## The Impact of Cultural Intelligence (CQ) on Task Performance Among International and Non-Malay Students in Public University

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### Abstract

Studying in a higher learning institution is physically and mentally challenging. Students need to cope with academic requirements and adapt to foreign and new environments. Their ability to embrace the new culture is one factor in performing well in their studies, especially when they are in a homogenous culture. This study targets non-Malay and International students studying at Universiti Malaysia Kelantan (UMK). By using the Cultural Intelligence (CQ) model, this study aims to find (1) the level of task performance, metacognitive, cognitive, motivational, and behavioural CQ, and (2) the relationship between task performance and other CQ variables. This study uses a quantitative research design with a survey method. This study uses stratified random sampling, in which an online questionnaire was randomly distributed to non-Malay and international students from Feb–March 2024. A total of 324 students participated in the study. SPSS V.26 is used for the data analysis, and descriptive and inferential statistics are used to answer the objectives formed. The study found that the students have a high level of cultural intelligence and task performance. In addition, task performance has a significant, positive relationship with metacognitive, cognitive, motivational, and behavioural CQ; therefore, all hypotheses are supported. The study concludes that UMK students have high CQ. They understand and respect Malay culture rooted among the Kelantanese and can adapt to it. Therefore, they can focus on their task and excel academically.

**Keywords:** Behavioral, Cultural Intelligence, UMK Students, Task Performance, UMK.

### Introduction

International students face significant mental health and adaptation challenges when studying abroad. Adjusting to an unfamiliar environment can lead to loneliness, depression, and acculturative stress due to differences in cultural norms and values.<sup>1</sup> In severe cases, failure to adjust has been associated with extreme outcomes such as bullying, severe

<sup>1</sup> Nur Dini Kamilia Norazizi et al., "Influence of Depression and Loneliness on Suicidal Behaviour Among Public University Students in Malaysia," *Pertanika Journal of Social Sciences & Humanities* 32, no. S3 (2024): 55–70, <https://doi.org/10.47836/pjssh.32.S3.04>.

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depression, and even suicide.<sup>2</sup> Beyond emotional and physical well-being, prolonged acculturative stress, which may manifest as anxiety, fatigue, and social withdrawal, can negatively affect students' campus engagement and academic achievement.<sup>3</sup> More specifically, such difficulties may hinder their task performance, defined as the ability to make appropriate decisions and complete academic responsibilities effectively and on time.<sup>4</sup>

To overcome these cross-cultural challenges, students may rely on Cultural Intelligence (CQ). First introduced by Earley and Ang (2003),<sup>5</sup> CQ refers to an individual's capability to adapt and function effectively in unfamiliar intercultural environments. Rather than simply memorising facts about a particular country or culture, CQ involves the flexibility to understand a new cultural environment, accurately interpret ambiguous social cues, and adjust one's behaviour to interact appropriately with local communities.<sup>6</sup> Higher levels of CQ can therefore help individuals address adjustment difficulties, reduce acculturative stress, and function more effectively in culturally diverse settings.<sup>7</sup>

Earley and Ang (2003)<sup>8</sup> conceptualised CQ as comprising four interrelated dimensions: metacognitive, cognitive, motivational, and behavioural CQ. Metacognitive CQ refers to the higher-order mental ability to plan, monitor, and revise one's understanding of cultural norms during cross-cultural interactions.<sup>9</sup> Cognitive CQ concerns practical knowledge of another culture's economic, legal, and social systems, as well as its core values and practices, acquired through education and experience.<sup>10</sup> Motivational CQ refers to the intrinsic drive and confidence required to direct attention and energy toward learning about

<sup>2</sup> Ida Nadirah Ibrahim, "US University Sued Over Malaysian PhD Student's Suicide After Months of Bullying," *Malay Mail*, August 6, 2019, <https://www.malaymail.com/news/malaysia/2019/08/06/us-university-sued-over-malaysian-phd-students-suicide-after-months-of-bull/1778160>; Jamiel Lynch and Elizabeth Wolfe, "Rice University Student Killed in Apparent Murder-Suicide, Police Say, Prompting Campus-Wide Lockdown on First Day of Class," *CNN*, August 27, 2024, <https://edition.cnn.com/2024/08/26/us/rice-university-student-homicide-investigation/index.html>.

<sup>3</sup> Abdullah Ahmed Alasmari, "Challenges and Social Adaptation of International Students in Saudi Arabia," *Heliyon* 9, no. 5 (2023): e16283, <https://doi.org/10.1016/j.heliyon.2023.e16283>; Hartini Husin et al., "The Effects of Cultural Intelligence on International Students' Engagement," *International Journal of Business, Economics and Law* 12, no. 2 (2017): 18–25; Nurul Nabilah Yusof et al., "Challenges Experienced by Malaysian Students Abroad," *Jurnal Personalia Pelajar* 20, no. 2 (2017): 73–81.

<sup>4</sup> Llewellyn E. Van Zyl et al., "The Academic Task Performance Scale: Psychometric Properties, and Measurement Invariance Across Ages, Genders and Nations," *Frontiers in Education* 9 (2024): 1281859, <https://doi.org/10.3389/fedu.2024.1281859>.

<sup>5</sup> P. Christopher Earley and Soon Ang, *Cultural Intelligence: Individual Interactions Across Cultures* (Stanford University Press, 2003).

<sup>6</sup> P. Christopher Earley and Randall S. Peterson, "The Elusive Cultural Chameleon: Cultural Intelligence as a New Approach to Intercultural Training for the Global Manager," *Academy of Management Learning & Education* 3, no. 1 (2004): 100–116, <https://doi.org/10.5465/amle.2004.12436826>; David C. Thomas, "Domain and Development of Cultural Intelligence: The Importance of Mindfulness," *Group & Organization Management* 31, no. 1 (2006): 78–99, <https://doi.org/10.1177/1059601105275266>.

<sup>7</sup> Richard Brislin et al., "Cultural Intelligence: Understanding Behaviors That Serve People's Goals," *Group & Organization Management* 31, no. 1 (2006): 40–55, <https://doi.org/10.1177/1059601105275262>.

<sup>8</sup> Earley and Ang, *Cultural Intelligence: Individual Interactions Across Cultures*.

<sup>9</sup> Linn Van Dyne et al., "Cultural Intelligence: A Pathway for Leading in a Rapidly Globalizing World," in *Leadership Across Differences: Cases and Perspectives*, ed. K. M. Hannum et al. (Pfeiffer, 2009).

<sup>10</sup> Kathy S. Collins et al., "Does Cultural Intelligence Matter? Effects of Principal and Teacher Cultural Intelligence on Latino Student Achievement," *Journal for Multicultural Education* 10, no. 4 (2016): 465–88, <https://doi.org/10.1108/JME-07-2015-0026>.

and functioning within culturally diverse situations.<sup>11</sup> Behavioural CQ, meanwhile, represents the ability to translate cultural understanding into action by displaying appropriate verbal and non-verbal behaviours in culturally diverse settings.<sup>12</sup>

Although early research on Cultural Intelligence primarily focused on business and human resource management, the framework has increasingly been applied to educational settings. Foundational research has demonstrated that cultural intelligence can predict task performance, cross-cultural adaptation, and cultural judgment.<sup>13</sup> Nevertheless, the relationship between CQ and performance is highly contextual, and subsequent studies have shown that various mediating factors may influence these outcomes. Duff et al. (2012),<sup>14</sup> for example, found that behavioural CQ can enhance task performance in culturally diverse environments, while openness to new experiences plays an important role in shaping this relationship.

As students and educators increasingly engage in multicultural interactions, CQ has become increasingly important for successful collaboration and performance. Previous research has demonstrated the importance of cultural intelligence in facilitating cross-cultural adjustment and performance in unfamiliar environments.<sup>15</sup> The positive influence of CQ also extends to educational leadership. Collins et al. (2016)<sup>16</sup> demonstrated that school principals' and teachers' cultural intelligence is associated with minority students' academic achievement. Taken together, these findings suggest that the influence of CQ on performance may vary across academic and cultural contexts, reinforcing the importance of examining CQ within specific educational environments.

A critical limitation of previous educational research, however, concerns the way "task performance" has often been conceptualised. As highlighted by York et al. (2015),<sup>17</sup> academic performance has frequently been measured through grades, test scores, or overall grade point average (GPA). Although these indicators measure academic outcomes, they do not necessarily capture students' functional proficiency in carrying out fundamental study-related activities. To address this limitation, the present study builds on the framework proposed by Van Zyl et al. (2024),<sup>18</sup> which conceptualises academic task performance in terms of students' practical ability to fulfil core academic responsibilities according to

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<sup>11</sup> Albert Bandura, "Social Cognitive Theory in Cultural Context," *Applied Psychology: An International Review* 51, no. 2 (2002): 269–90, <https://doi.org/10.1111/1464-0597.00092>; David Livermore, *Leading with Cultural Intelligence* (AMACOM, 2009).

<sup>12</sup> Michael Goh, "Teaching with Cultural Intelligence: Developing Multiculturally Educated and Globally Engaged Citizens," *Asia Pacific Journal of Education* 32, no. 4 (2012): 395–415, <https://doi.org/10.1080/02188791.2012.738679>.

<sup>13</sup> Goh, "Teaching with Cultural Intelligence: Developing Multiculturally Educated and Globally Engaged Citizens."

<sup>14</sup> Angus J. Duff et al., "The Interactive Effect of Cultural Intelligence and Openness on Task Performance," *Research and Practice in Human Resource Management* 20, no. 1 (2012): 1–17.

<sup>15</sup> Hyoungh Koo Moon et al., "Previous International Experience, Cross-Cultural Training, and Expatriates' Cross-Cultural Adjustment: Effects of Cultural Intelligence and Goal Orientation," *Human Resource Development Quarterly* 23, no. 3 (2012): 285–330, <https://doi.org/10.1002/hrdq.21131>.

<sup>16</sup> Collins et al., "Does Cultural Intelligence Matter? Effects of Principal and Teacher Cultural Intelligence on Latino Student Achievement."

<sup>17</sup> Travis T. York et al., "Defining and Measuring Academic Success," *Practical Assessment, Research, and Evaluation* 20, no. 1 (2015): 5, <https://doi.org/10.7275/hz5x-tx03>.

<sup>18</sup> Van Zyl et al., "The Academic Task Performance Scale: Psychometric Properties, and Measurement Invariance Across Ages, Genders and Nations."

expected standards and within specified timeframes. In this context, task performance includes behavioural competencies such as managing study time effectively, planning assignments, prioritising competing demands, and avoiding distractions.<sup>19</sup> Focusing on these competencies provides a more functional perspective for examining how CQ relates to students' day-to-day academic activities.

### ***The Kelantan, Malaysia Context***

Previous regional studies on cross-cultural adaptation have primarily examined international students studying in Malaysia<sup>20</sup> and China,<sup>21</sup> or Malaysian students adapting to educational environments abroad, including the United Kingdom<sup>22</sup> and China.<sup>23</sup> By comparison, domestic cross-cultural adaptation within a multi-ethnic society such as Malaysia remains relatively underexplored. When pursuing tertiary education, students may leave their hometowns, familiar cultural environments, and established support networks. Cultural intelligence may therefore play an important role in helping them adapt to new domestic environments and maintain their academic performance.

This study focuses specifically on Universiti Malaysia Kelantan (UMK), located in Kelantan, a state widely associated with Malay cultural traditions. Kelantan presents a distinctive cultural environment. According to the Department of Statistics Malaysia,<sup>24</sup> Malays comprise 95.5% of the population, alongside smaller proportions of Chinese (2.4%), other Bumiputera groups (1.2%), and Indians (0.3%). Compared with several other states in Peninsular Malaysia, Kelantan has experienced relatively limited historical migration from the broader Malay archipelago, contributing to its comparatively low level of ethnic heterogeneity.<sup>25</sup>

<sup>19</sup> Van Zyl et al., "The Academic Task Performance Scale: Psychometric Properties, and Measurement Invariance Across Ages, Genders and Nations"; Llewellyn E. Van Zyl et al., "The General Academic Self-Efficacy Scale: Psychometric Properties, Longitudinal Invariance, and Criterion Validity," *Journal of Psychoeducational Assessment* 40, no. 6 (2022): 777–89, <https://doi.org/10.1177/07342829221097174>.

<sup>20</sup> Brislin et al., "Cultural Intelligence: Understanding Behaviors That Serve People's Goals"; Cui En et al., "Sociocultural Adaptation, Educational Ecosystem and Quality of Life among the International Students Community in Malaysia," *International Journal of Academic Research in Business and Social Sciences* 13, no. 16 (2023): 156–73, <https://doi.org/10.6007/IJARBS/v13-i16/18733>; Abdullahi Mohamed Mohamed, "Cultural Adjustment of International Students as Expatriates in Malaysia" (Master's thesis, Universiti Utara Malaysia, 2014).

<sup>21</sup> Kai Chu and Fan Zhu, "Impact of Cultural Intelligence on the Cross-Cultural Adaptation of International Students in China: The Mediating Effect of Psychological Resilience," *Frontiers in Psychology* 14 (2023): 1077424, <https://doi.org/10.3389/fpsyg.2023.1077424>; Wenyu Di et al., "Research on Cross-Cultural Adaptation and Educational Management of International Students in China: Case of African Students at Zhejiang Normal University," *Frontiers in Psychology* 13 (2022): 1009658, <https://doi.org/10.3389/fpsyg.2022.1009658>; Haiyan Sun et al., "Cross-Cultural Adaptation for International Nursing Students from the Belt and Road Initiative in China: A Follow-Up Survey Study," *Heliyon* 9, no. 11 (2023): e21898, <https://doi.org/10.1016/j.heliyon.2023.e21898>.

<sup>22</sup> Rashidah Mamat and Nor Azlah Sham Rambely, "Studying Abroad: Malay Students' Attitude Towards the UK Education System and Personal Adjustment," 1, no. 1 (2016): 479–92, <https://doi.org/10.21070/picecrs.v1i1.517>.

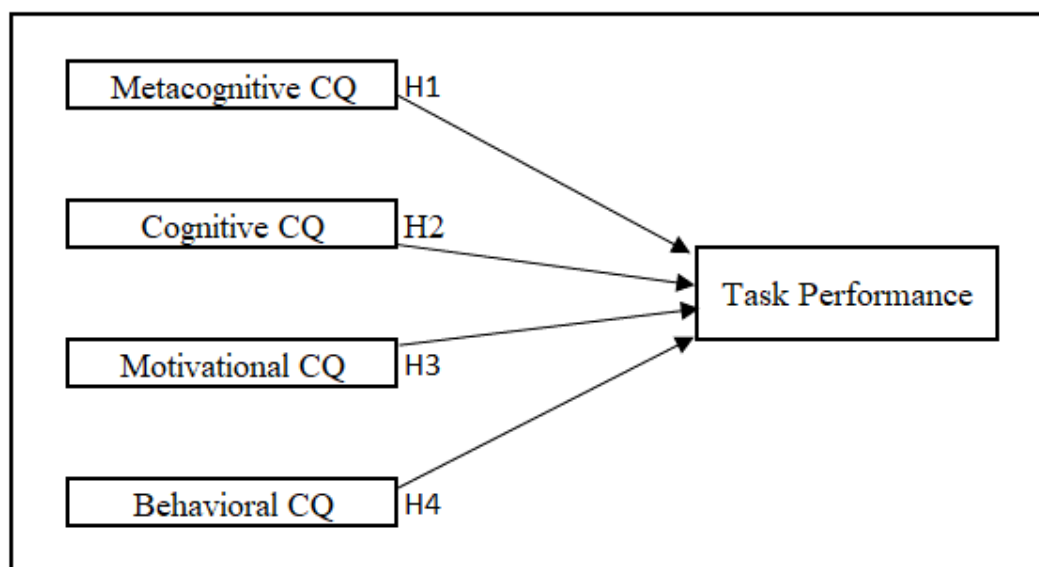
<sup>23</sup> Chunshuang Wang, "A Study on Cross-Cultural Adaptation Problems and Countermeasures Research for Malaysian Students in Tianjin," *SHS Web of Conferences* 148 (2022): 01023, <https://doi.org/10.1051/shsconf/202214801023>.

<sup>24</sup> Department of Statistics Malaysia, "Bahagian Perangkaan Penduduk Dan Demografi," August 25, 2026, <https://tableau.dosm.gov.my/t/BPPD-BahagianperangkaanpendudukdanDemografi/views/MyDemography/MyDemography>.

<sup>25</sup> Robert L. Winzeler, *Ethnic Relations in Kelantan: A Study of the Chinese and Thai as Ethnic Minorities in a Malay State* (Oxford University Press, 1985).

This demographic homogeneity has contributed to the development of a distinctive Kelantanese Malay identity characterised by strong traditional and conservative values.<sup>26</sup> The local dialect further reinforces this identity. Residents of different ethnic backgrounds who were born and raised in Kelantan are commonly able to communicate in Kelantanese Malay, which contributes to a shared identity as *Orghe Kelantan* (people of Kelantan). This linguistic and cultural foundation also creates a strong sense of provincial identity. Locals may refer to one another as *Orghe Kita* (our people), while individuals from other states may be described as *Orghe Luar* (outsiders).<sup>27</sup>

For non-Malay students from other Malaysian states and international students, studying within this closely connected majority-culture environment may require considerable cross-cultural adaptation. The present study therefore investigates how these students utilise cultural intelligence to adapt to the Kelantan university context. Specifically, the study aims to analyse the levels of task performance and cultural intelligence among non-Malay and international students at UMK and to examine the relationships between task performance and the four dimensions of cultural intelligence.



**Figure 1. Conceptual Framework of the Study**

As illustrated in Figure 1, task performance is positioned as the outcome variable, while metacognitive, cognitive, motivational, and behavioural CQ constitute the four explanatory dimensions. Accordingly, the study proposes that task performance is significantly related to metacognitive CQ (H1), cognitive CQ (H2), motivational CQ (H3), and behavioural CQ (H4).

<sup>26</sup> Douglas Raybeck, "Ethnicity and Accommodation: Malay-Chinese Relations in Kelantan, Malaysia," *Ethnic Groups: An International Periodical of Ethnic Studies* 2, no. 3 (1980): 241–68; Mala Rajo Sathian and Yeok Meng Ngeow, "Essentialising Ethnic and State Identities: Strategic Adaptations of Ethnic Chinese in Kelantan, Malaysia," *Asian Studies Review* 38, no. 3 (2014): 385–402, <https://doi.org/10.1080/10357823.2014.936361>.

<sup>27</sup> Murina R. Pawanteh and James B. Kuake, "Orghe Kelantan: A Preliminary Study," *International Journal of Culture and History* 2, no. 4 (2016): 184–88, <https://doi.org/10.18178/ijch.2016.2.4.061>.

## Research Method

This study employed a quantitative research design using a survey method. Data were collected through a self-administered questionnaire designed to measure task performance and the four dimensions of cultural intelligence: metacognitive, cognitive, motivational, and behavioural CQ.

Prior to the main data collection, a pilot study was conducted in January 2024 among non-Malay and international students at Universiti Malaysia Kelantan (UMK). The pilot questionnaire was administered to 30 respondents to assess the internal consistency of the measurement items. The results showed satisfactory reliability across all variables, indicating that the instrument was suitable for use in the main study. Following the pilot study, the actual data collection was conducted from February to March 2024.

As of December 2023, the study population consisted of 2,912 students, comprising 2,572 non-Malay students and 340 international students. Stratified random sampling was employed to ensure representation of both groups. Using a sampling fraction of approximately 0.12, a total of 340 questionnaires were distributed, consisting of 300 questionnaires for non-Malay students and 40 for international students. After data screening, 4.7% of the returned questionnaires were excluded because of incomplete responses. Consequently, 324 valid questionnaires were retained for analysis, comprising 278 non-Malay students and 46 international students.

**Table 1. Population and Sample Distribution**

| Group of Students      | Population (N) | Target Sample (n) | Actual Data |
|------------------------|----------------|-------------------|-------------|
| Non-Malay students     | 2,572          | 300               | 278         |
| International students | 340            | 40                | 46          |
| <b>Total</b>           | <b>2,912</b>   | <b>340</b>        | <b>324</b>  |

**Table 2. Reliability Analysis of the Pilot and Actual Studies**

| Variable         | Pilot Study $\alpha$ (n = 30) | No. of Items | Actual Study $\alpha$ (n = 324) | No. of Items |
|------------------|-------------------------------|--------------|---------------------------------|--------------|
| Task Performance | .889                          | 11           | .925                            | 11           |
| Metacognitive CQ | .858                          | 7            | .905                            | 7            |
| Cognitive CQ     | .855                          | 7            | .926                            | 7            |
| Motivational CQ  | .902                          | 5            | .915                            | 5            |
| Behavioural CQ   | .921                          | 5            | .915                            | 5            |

The data were analysed using the Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to describe respondents' characteristics and the levels of task performance and cultural intelligence. Inferential statistical analyses were subsequently conducted to examine the relationships between task performance and the four dimensions of cultural intelligence and to test the hypotheses formulated in the study.

### **Reliability Analysis**

Cronbach's alpha was used to assess the internal consistency of the measurement scales. A coefficient of  $\alpha \geq .70$  was considered acceptable. As presented in Table 2, all variables demonstrated satisfactory reliability in both the pilot and actual studies. In the pilot study, Cronbach's alpha coefficients ranged from .855 to .921, while in the actual study they

ranged from .905 to .926. These results indicate that all measurement scales had high internal consistency and were appropriate for subsequent statistical analysis.

## **Results and Discussion**

### ***Demographic Characteristics***

The demographic characteristics of the respondents are presented in Table 3. Of the 324 respondents, 67.0% were female and 33.0% were male. Nearly half of the respondents (46.6%) were aged between 21 and 22 years, followed by those aged 23–24 years (35.2%). A smaller proportion were aged 27 years and above (11.4%), 20 years and below (4.3%), and 25–26 years (2.5%).

With regard to the duration of residence in Kelantan, 47.2% of the respondents had lived in Kelantan for one year or less, while 46.0% had lived in the state for two to three years. Only a small proportion had lived in Kelantan for four to five years (2.8%), six years or more (1.5%), or since birth (2.5%). In terms of nationality, 85.8% of the respondents were Malaysian, while 14.2% were international students.

**Table 3. Demographic Characteristics**

| No | Items                        | Details          | Frequency  | Per cent     |
|----|------------------------------|------------------|------------|--------------|
| 1  | Gender                       | Male             | 107        | 33.0         |
|    |                              | Female           | 217        | 67.0         |
|    |                              | <b>Total</b>     | <b>324</b> | <b>100.0</b> |
| 2  | Age group                    | 20 & less        | 14         | 4.3          |
|    |                              | 21-22            | 151        | 46.6         |
|    |                              | 23-24            | 114        | 35.2         |
|    |                              | 25-26            | 8          | 2.5          |
|    |                              | 27 & more        | 37         | 11.4         |
|    |                              | <b>Total</b>     | <b>324</b> | <b>100.0</b> |
|    |                              | Since Birth      | 8          | 2.5          |
| 3  | Duration of stay in Kelantan | 1 year and less  | 153        | 47.2         |
|    |                              | 2-3 years        | 149        | 46.0         |
|    |                              | 4-5 years        | 9          | 2.8          |
|    |                              | 6 years and more | 5          | 1.5          |
|    |                              | <b>Total</b>     | <b>324</b> | <b>100.0</b> |
|    |                              | Malaysian        | 278        | 85.8         |
| 4  | Nationality                  | Non-Malaysian    | 46         | 14.2         |
|    |                              | <b>Total</b>     | <b>324</b> | <b>100.0</b> |

### ***Educational Characteristics***

Table 4 presents the educational characteristics of the respondents. Most respondents were undergraduate students (83.6%), while 16.4% were postgraduate students. The largest proportion of respondents came from the Faculty of Entrepreneurship and Business (FKP), accounting for 44.8% of the sample. This was followed by the Faculty of Creative Technology and Heritage (FTKW) at 12.3%, the Faculty of Hospitality, Tourism and Wellness (FHPK) at 11.7%, and the Faculty of Veterinary Medicine (FPV) at 8.3%. Respondents from the remaining faculties constituted smaller proportions of the total sample.

The demographic and educational distributions indicate that the sample included respondents from different academic levels, faculties, nationalities, and lengths of residence in Kelantan. These characteristics provide an appropriate basis for examining cultural intelligence and task performance among non-Malay and international students at UMK.

**Table 4. Educational Characteristics**

| No | Items          | Details      | Frequency  | Per cent     |
|----|----------------|--------------|------------|--------------|
| 1  | Level of study | UG           | 271        | 83.6         |
|    |                | PG           | 53         | 16.4         |
|    |                | <b>Total</b> | <b>324</b> | <b>100.0</b> |
| 2  | Faculty        | FTKW         | 40         | 12.3         |
|    |                | FSE          | 3          | 0.9          |
|    |                | FBI          | 11         | 3.4          |
|    |                | FKP          | 145        | 44.8         |
|    |                | FHPK         | 38         | 11.7         |
|    |                | FPV          | 27         | 8.3          |
|    |                | FIAT         | 23         | 7.1          |
|    |                | FSB          | 12         | 3.7          |
|    |                | FBKT         | 21         | 6.5          |
|    |                | FSDK         | 3          | 0.9          |
|    |                | MGSEB        | 1          | 0.3          |
|    |                | <b>Total</b> | <b>324</b> | <b>100.0</b> |

### Levels of Task Performance and Cultural Intelligence

The first objective of this study was to determine the levels of task performance and the four dimensions of cultural intelligence, namely metacognitive, cognitive, motivational, and behavioural CQ. A one-sample *t*-test with a test value of 3 was used to determine whether the mean scores for each variable were significantly above the midpoint of the measurement scale.

#### Level of Task Performance

Table 5 presents the level of task performance among non-Malay and international students at UMK. The highest-rated item was the intention to achieve good results (86.5%), followed by the ability to set priorities (83.1%), willingness to learn new skills (82.5%), ability to plan work effectively (82.3%), and ability to work efficiently (81.9%). Respondents also reported relatively high levels of problem-solving ability (81.0%) and active participation in meetings and group discussions (80.2%).

In addition, 79.6% of respondents indicated that they started new tasks immediately after completing previous ones, while the same proportion reported willingness to take on additional responsibilities. Approximately 77.7% indicated that they did not complain about tasks assigned by lecturers, and 77.4% reported that they enjoyed challenging tasks.

Overall, the respondents demonstrated a high and statistically significant level of task performance ( $M = 4.054$ ,  $SD = 0.699$ ,  $t(323) = 27.131$ ,  $p < .001$ ). The overall score of 81.1% indicates that most respondents were motivated to perform well academically. Despite studying away from their home environment or living in a predominantly Malay cultural

setting, non-Malay and international students remained focused on their academic responsibilities.

**Table 5. Level of Task Performance**

| No.                          | Task performance (N=324)                                         | M            | SD           | %           | t             | df         | p           |
|------------------------------|------------------------------------------------------------------|--------------|--------------|-------------|---------------|------------|-------------|
| 1                            | I aim to achieve a good result                                   | 4.327        | 0.793        | 86.5        | 30.110        | 323        | .000        |
| 2                            | I am able to set priorities for my task                          | 4.157        | 0.860        | 83.1        | 24.221        | 323        | .000        |
| 3                            | I am always learning new skills                                  | 4.124        | 0.916        | 82.5        | 22.075        | 323        | .000        |
| 4                            | I always plan my work so that I can finish on time               | 4.117        | 0.917        | 82.3        | 21.934        | 323        | .000        |
| 5                            | I am able to do my work efficiently                              | 4.096        | 0.904        | 81.9        | 21.814        | 323        | .000        |
| 6                            | I come up with the solution for my problem                       | 4.049        | 0.864        | 81.0        | 21.858        | 323        | .000        |
| 7                            | I actively participate in meetings and group discussions         | 4.009        | 0.952        | 80.2        | 19.075        | 323        | .000        |
| 8                            | I start a new task immediately when I have completed my old task | 3.978        | 0.939        | 79.6        | 18.753        | 323        | .000        |
| 9                            | I take extra responsibilities                                    | 3.978        | 0.984        | 79.6        | 17.895        | 323        | .000        |
| 10                           | I do not complain about the task given by my lecturers           | 3.886        | 1.036        | 77.7        | 15.388        | 323        | .000        |
| 11                           | I like to have challenging tasks                                 | 3.870        | 0.987        | 77.4        | 15.876        | 323        | .000        |
| <b>Mean Task Performance</b> |                                                                  | <b>4.054</b> | <b>0.699</b> | <b>81.1</b> | <b>27.131</b> | <b>323</b> | <b>.000</b> |

This finding can also be understood in relation to resilience. Rutter (2012) conceptualised resilience as a dynamic process in which individuals respond differently to environmental challenges. Students who remain motivated despite unfamiliar cultural and learning environments may therefore demonstrate stronger adaptive capacities. This interpretation is consistent with Dolce and Ghislieri (2021),<sup>28</sup> who reported significant relationships between resilience and the dimensions of cultural intelligence. Similarly, Azevedo and Shane (2019)<sup>29</sup> found that interventions aimed at developing cultural intelligence could also contribute to greater resilience.

#### ***Level of Metacognitive CQ***

Table 6 presents the respondents' level of metacognitive CQ. The highest-rated item showed that 81.3% of respondents were conscious of interacting with students from different cultural backgrounds. Similarly, 80.7% reported adjusting their cultural knowledge when interacting with people from different cultures. Other highly rated behaviours included awareness of cultural knowledge during intercultural interaction (79.6%), adjusting cultural knowledge when living in Kelantan (79.2%), being conscious of cultural differences in

<sup>28</sup> Valentina Dolce and Chiara Ghislieri, "Resilience and Intercultural Interactions of Italian Erasmus Students: The Relation with Cultural Intelligence," *Journal of International Students* 12, no. 3 (2021): 674–93, <https://doi.org/10.32674/jis.v12i3.3667>.

<sup>29</sup> Ana Azevedo and Mary Jo Shane, "A New Training Program in Developing Cultural Intelligence Can Also Improve Innovative Work Behavior and Resilience: A Longitudinal Pilot Study of Graduate Students and Professional Employees," *The International Journal of Management Education* 17, no. 3 (2019): 100313, <https://doi.org/10.1016/j.ijme.2019.05.004>.

Kelantan (78.9%), and checking the accuracy of cultural knowledge during interactions with people from other cultures (78.5%).

Overall, respondents demonstrated a high and statistically significant level of metacognitive CQ ( $M = 3.933$ ,  $SD = 0.765$ ,  $t(323) = 21.946$ ,  $p < .001$ ), corresponding to an overall score of 78.7%. This finding indicates that non-Malay and international students at UMK are generally conscious of cultural differences and actively reflect on their cultural knowledge when interacting within the Kelantanese environment.

**Table 6. Level of Cultural Intelligence: Metacognitive Dimension**

| No                                  | Metacognitive factor (N=324)                                                                      | M            | SD           | %           | t             | df         | p           |
|-------------------------------------|---------------------------------------------------------------------------------------------------|--------------|--------------|-------------|---------------|------------|-------------|
| 1                                   | I am conscious that I am interacting with other students from different cultural backgrounds      | 4.065        | 0.985        | 81.3        | 19.451        | 323        | .000        |
| 2                                   | I adjust my cultural knowledge when I interact with people from different cultures                | 4.034        | 0.919        | 80.7        | 20.258        | 323        | .000        |
| 3                                   | I am aware of my cultural knowledge when I interact with people from other cultures               | 3.981        | 0.911        | 79.6        | 19.399        | 323        | .000        |
| 4                                   | I adjust my cultural knowledge when I am in Kelantan                                              | 3.960        | 0.999        | 79.2        | 17.292        | 323        | .000        |
| 5                                   | I am conscious of the different cultures in Kelantan                                              | 3.944        | 0.997        | 78.9        | 17.053        | 323        | .000        |
| 6                                   | I check the accuracy of my cultural knowledge when I interact with people from different cultures | 3.923        | 0.878        | 78.5        | 18.916        | 323        | .000        |
| 7                                   | I have knowledge of the Kelantan culture                                                          | 3.623        | 1.011        | 72.5        | 11.102        | 323        | .000        |
| <b>Mean CQ metacognitive factor</b> |                                                                                                   | <b>3.933</b> | <b>0.765</b> | <b>78.7</b> | <b>21.964</b> | <b>323</b> | <b>.000</b> |

Such cultural awareness is important because cultural intelligence can be developed through learning, reflection, and exposure to culturally diverse experiences. Livermore (2015)<sup>30</sup> emphasised that CQ can be developed through structured learning and practical intercultural engagement, while Azevedo and Shane (2019)<sup>31</sup> demonstrated that training interventions can improve cultural intelligence. In educational settings, the development of cultural awareness can also help students recognise differences in values, norms, and patterns of social interaction (Goh, 2012).<sup>32</sup>

### ***Level of Cognitive CQ***

The cognitive dimension of CQ concerns students' knowledge of the cultural characteristics of Kelantan. As presented in Table 7, respondents demonstrated the greatest familiarity with religious beliefs in Kelantan (75.9%), followed by local arts and crafts (72.0%) and cultural values (71.2%). Respondents also demonstrated knowledge of Kelantan's economic system (69.2%), dialect (68.5%), non-verbal behaviour (67.5%), and marriage system (66.9%).

<sup>30</sup> David Livermore, *Leading with Cultural Intelligence: The Real Secret to Success*, 2nd ed. (AMACOM, 2015).

<sup>31</sup> Azevedo and Shane, "A New Training Program in Developing Cultural Intelligence Can Also Improve Innovative Work Behavior and Resilience: A Longitudinal Pilot Study of Graduate Students and Professional Employees."

<sup>32</sup> Goh, "Teaching with Cultural Intelligence: Developing Multiculturally Educated and Globally Engaged Citizens."

**Table 7. Level of Cultural Intelligence: Cognitive Dimension**

| No                              | Cognitive factor (N=324)                       | M            | SD           | %           | t            | df         | p           |
|---------------------------------|------------------------------------------------|--------------|--------------|-------------|--------------|------------|-------------|
| 1                               | I know Kelantan religious beliefs              | 3.796        | 1.054        | 75.9        | 13.604       | 323        | .000        |
| 2                               | I know about Kelantan arts and craft           | 3.599        | 1.076        | 72.0        | 10.018       | 323        | .000        |
| 3                               | I know about Kelantan cultural values          | 3.562        | 1.049        | 71.2        | 9.634        | 323        | .000        |
| 4                               | I know about the economic system at Kelantan   | 3.460        | 1.144        | 69.2        | 7.238        | 323        | .000        |
| 5                               | I know about the Kelantan dialect              | 3.423        | 1.144        | 68.5        | 6.650        | 323        | .000        |
| 6                               | I know the nonverbal behaviours of Kelantanese | 3.373        | 1.110        | 67.5        | 6.057        | 323        | .000        |
| 7                               | I know about the Kelantan marriage system      | 3.343        | 1.192        | 66.9        | 5.173        | 323        | .000        |
| <b>Mean CQ cognitive factor</b> |                                                | <b>3.508</b> | <b>0.925</b> | <b>70.2</b> | <b>9.882</b> | <b>323</b> | <b>.000</b> |

Overall, respondents demonstrated a statistically significant level of cognitive CQ ( $M = 3.508$ ,  $SD = 0.925$ ,  $t(323) = 9.882$ ,  $p < .001$ ), representing an overall score of 70.2%. These findings suggest that most non-Malay and international students had acquired sufficient knowledge of various aspects of Kelantanese culture.

Cultural knowledge provides an important foundation for adapting to unfamiliar environments. Goh (2012)<sup>33</sup> highlighted the importance of educational experiences in developing cultural awareness and understanding. From an experiential learning perspective, cultural intelligence may also develop through repeated cycles of direct intercultural experience, reflection, conceptualisation, and experimentation with new behaviours (Wang & Goh, 2020).<sup>34</sup> This interpretation is consistent with Kolb's (1984)<sup>35</sup> Experiential Learning Theory, which conceptualises learning as an ongoing process through which individuals acquire new information, reconsider existing knowledge, and integrate new understanding into future actions.

In educational contexts, structured cross-cultural experiences can further strengthen this process. Tchaïcha and Davis (2005)<sup>36</sup> suggested that intercultural educational programmes may increase students' readiness and motivation before entering unfamiliar cultural environments. Similarly, Vance et al. (2011)<sup>37</sup> emphasised that international and intercultural experiential activities should be carefully planned to ensure meaningful engagement with local communities.

### **Level of Motivational CQ**

Table 8 presents the respondents' motivational CQ. Most respondents reported enjoying interactions with people from different cultures (81.0%). A further 78.3% expressed confidence when interacting with culturally different individuals, while 77.0% indicated that they were able to manage the stress associated with adapting to a new culture.

<sup>33</sup> Goh, "Teaching with Cultural Intelligence: Developing Multiculturally Educated and Globally Engaged Citizens."

<sup>34</sup> Kenneth T. Wang and Michael Goh, "Cultural Intelligence," in *The Wiley Encyclopedia of Personality and Individual Differences: Models and Theories*, vol. 4, ed. Bernardo J. Carducci et al. (John Wiley & Sons, 2020).

<sup>35</sup> David A. Kolb, *Experiential Learning: Experience as the Source of Learning and Development* (Prentice Hall, 1984).

<sup>36</sup> Jane D. Tchaïcha and Mary M. Davis, "The Impact of Culture on Technology and Business: An Interdisciplinary, Experiential Course Paradigm," *Journal of Management Education* 29, no. 5 (2005): 738–57, <https://doi.org/10.1177/1052562905277306>.

<sup>37</sup> Charles M. Vance et al., "Building Global Competencies Through Experiential Coursework in International Travel and Tourism," *Journal of International Education in Business* 4, no. 1 (2011): 30–41, <https://doi.org/10.1108/18363261111170577>.

The same proportion expressed confidence in their ability to fit into a new cultural environment, while 75.7% reported enjoying living within an unfamiliar culture.

**Table 8. Level of Cultural Intelligence: Motivational Dimension**

| No                                 | Motivational factor (N=324)                                         | M            | SD           | %           | t             | df         | P           |
|------------------------------------|---------------------------------------------------------------------|--------------|--------------|-------------|---------------|------------|-------------|
| 1                                  | I enjoy interacting with people from different cultures             | 4.052        | 0.928        | 81.0        | 20.416        | 323        | .000        |
| 2                                  | I am confident when interacting with people from different cultures | 3.917        | 0.990        | 78.3        | 16.662        | 323        | .000        |
| 3                                  | I can deal with stress when adjusting to a new culture              | 3.852        | 0.952        | 77.0        | 16.102        | 323        | .000        |
| 4                                  | I am confident that I can fit into the new culture well             | 3.852        | 0.955        | 77.0        | 16.048        | 323        | .000        |
| 5                                  | I enjoy living in the new culture that I am not familiar with       | 3.784        | 1.036        | 75.7        | 13.617        | 323        | .000        |
| <b>Mean CQ motivational factor</b> |                                                                     | <b>3.891</b> | <b>0.840</b> | <b>77.8</b> | <b>19.089</b> | <b>323</b> | <b>.000</b> |

Overall, respondents demonstrated a high and statistically significant level of motivational CQ ( $M = 3.891$ ,  $SD = 0.840$ ,  $t(323) = 19.089$ ,  $p < .001$ ), corresponding to an overall score of 77.8%. This finding indicates that most respondents possessed the motivation and confidence required to adapt to the Kelantanese cultural environment.

Motivational CQ reflects an individual's willingness to invest attention and effort in intercultural interactions. Earley and Peterson (2004)<sup>38</sup> argued that motivation is important in developing intercultural competence because individuals must possess sufficient confidence and persistence to engage with unfamiliar cultural environments. Peng et al. (2015)<sup>39</sup> similarly found that motivational CQ contributes to cultural effectiveness among university students participating in study-abroad experiences. Schreuders-van den Bergh and Du Plessis (2016) also emphasised the importance of intrinsic motivation, self-efficacy, and goal-setting in facilitating adjustment within host cultures.

#### ***Level of Behavioural CQ***

Table 9 presents the behavioural dimension of cultural intelligence. More than three-quarters of respondents indicated that they spoke differently when required by the cultural situation (76.4%). Approximately 75.7% reported modifying the way they spoke and adjusting their non-verbal behaviour to suit unfamiliar cultural contexts. Respondents also reported changing their tone or accent (74.9%) and facial expressions (74.9%) when interacting across cultures.

Overall, respondents demonstrated a high and statistically significant level of behavioural CQ ( $M = 3.777$ ,  $SD = 0.881$ ,  $t(323) = 15.887$ ,  $p < .001$ ), corresponding to an overall score of 75.5%. These findings indicate that non-Malay and international students were generally willing and able to modify their verbal and non-verbal behaviours when interacting within the Kelantanese cultural environment.

Taken together, the findings indicate that task performance and all four dimensions of cultural intelligence were above the scale midpoint and statistically significant. Among the CQ dimensions, metacognitive CQ recorded the highest mean score, followed by

<sup>38</sup> Earley and Peterson, "The Elusive Cultural Chameleon: Cultural Intelligence as a New Approach to Intercultural Training for the Global Manager."

<sup>39</sup> Ann C. Peng et al., "The Influence of Motivational Cultural Intelligence on Cultural Effectiveness Based on Study Abroad: The Moderating Role of Participant's Cultural Identity," *Journal of Management Education* 39, no. 5 (2015): 572–96, <https://doi.org/10.1177/1052562914555717>.

motivational, behavioural, and cognitive CQ. The analysis therefore proceeded to examine whether these dimensions were significantly associated with students' task performance.

**Table 9. Level of Cultural Intelligence: Behavioural Dimension**

| No                                | Behaviour factor (N=324)                                               | M            | SD           | %           | t             | df         | p           |
|-----------------------------------|------------------------------------------------------------------------|--------------|--------------|-------------|---------------|------------|-------------|
| 1                                 | I speak differently in the new culture if necessary                    | 3.821        | 1.007        | 76.4        | 14.673        | 323        | .000        |
| 2                                 | I change the way I speak to suit the new cultural situation            | 3.787        | 1.008        | 75.7        | 14.052        | 323        | .000        |
| 3                                 | I change my non-verbal behavior to fit in the new culture if necessary | 3.787        | 0.986        | 75.7        | 14.361        | 323        | .000        |
| 4                                 | I change my verbal (tone accent) when I interact with a new culture    | 3.747        | 1.072        | 74.9        | 12.540        | 323        | .000        |
| 5                                 | I change my facial expression when I interact with different culture   | 3.744        | 1.020        | 74.9        | 13.132        | 323        | .000        |
| <b>Mean CQ behavioural factor</b> |                                                                        | <b>3.777</b> | <b>0.881</b> | <b>75.5</b> | <b>15.887</b> | <b>323</b> | <b>.000</b> |

### **Relationships Between Task Performance and Cultural Intelligence**

The second objective of the study was to examine the relationships between task performance and the four dimensions of cultural intelligence. Bivariate correlation analysis was used to determine the direction and strength of these relationships and to test the four hypotheses.

**Table 10. Correlations Between Task Performance and the Four Dimensions of Cultural Intelligence**

| Variables | M     | SD    | Task                 | Metacog              | Cog                  | Mot                   |
|-----------|-------|-------|----------------------|----------------------|----------------------|-----------------------|
| Task      | 4.054 | 0.699 | 1                    |                      |                      |                       |
| Metacog   | 3.933 | 0.765 | $r = .599, p = .000$ | 1                    |                      |                       |
| Cog       | 3.508 | 0.925 | $r = .506, p = .000$ | $r = .658, p = .000$ | 1                    |                       |
| Mot       | 3.891 | 0.840 | $r = .591, p = .000$ | $r = .707, p = .000$ | $r = .648, p = .000$ | 1                     |
| Beh       | 3.777 | 0.881 | $r = .506, p = .000$ | $r = .648, p = .000$ | $r = .618, p = .000$ | $r = .720, p = .0000$ |

The results indicate a statistically significant positive relationship between task performance and metacognitive CQ ( $r = .599, p < .001$ ). This represents a moderate relationship, indicating that students with greater awareness and regulation of their cultural knowledge tended to report better task performance. Accordingly, H1, which proposed a significant relationship between task performance and metacognitive CQ, was supported.

Previous research has similarly demonstrated relationships between cultural intelligence and work- or task-related outcomes. Duff et al. (2012)<sup>40</sup> showed that cultural intelligence contributes to task performance under culturally diverse conditions, while Jyoti and Kour (2015)<sup>41</sup> identified a positive relationship between CQ and task performance, partly through cultural adjustment. More comprehensively, the meta-analysis by Schlaegel

<sup>40</sup> Duff et al., "The Interactive Effect of Cultural Intelligence and Openness on Task Performance."

<sup>41</sup> Jeevan Jyoti and Sumeet Kour, "Assessing the Cultural Intelligence and Task Performance Equation: Mediating Role of Cultural Adjustment," *Cross Cultural Management: An International Journal* 22, no. 2 (2015): 236–58, <https://doi.org/10.1108/CCM-04-2013-0072>.

et al. (2021)<sup>42</sup> confirmed that cultural intelligence is associated with various work-related outcomes across multiple studies. These findings reinforce the argument that the ability to understand and regulate one's responses to cultural differences may facilitate effective task execution.

This relationship is particularly relevant in educational settings because comparatively fewer studies have examined students' task performance using behavioural measures rather than conventional academic outcomes such as GPA. Wang and Zhang (2021),<sup>43</sup> for example, examined the relationship between cultural intelligence and self-reported academic performance. Their findings showed that motivational and behavioural CQ were significantly associated with GPA. The present study extends this line of research by examining task performance as a broader set of day-to-day academic behaviours rather than relying exclusively on grades.

The second analysis examined the relationship between task performance and cognitive CQ. The results revealed a statistically significant positive relationship between the two variables ( $r = .506, p < .001$ ). This moderate relationship suggests that students who possess greater knowledge of cultural differences also tend to report better task performance. Therefore, H2, which proposed a significant relationship between task performance and cognitive CQ, was supported.

This finding is generally consistent with Şahin et al. (2013),<sup>44</sup> who reported an association between cognitive CQ and academic outcomes among students with international experience. However, Wang and Zhang (2021)<sup>45</sup> reported that the cognitive dimension was not significantly associated with self-reported GPA in their sample. These differing findings suggest that relationships between individual CQ dimensions and academic outcomes may vary depending on the study population, educational environment, and the way academic performance is operationalised.

The third analysis examined the relationship between task performance and motivational CQ. The results showed a statistically significant positive relationship ( $r = .591, p < .001$ ), indicating that students with greater motivation to engage with culturally different environments tended to demonstrate better task performance. H3 was therefore supported.

Motivational CQ has been associated with general adjustment, work adjustment, and intercultural interaction because it encourages individuals to develop an intrinsic interest in unfamiliar cultures and to engage actively in cultural learning.<sup>46</sup> Individuals with stronger motivational CQ are more likely to invest effort in developing cultural knowledge and

<sup>42</sup> Christopher Schlaegel et al., "Cultural Intelligence and Work-Related Outcomes: A Meta-Analytic Examination of Joint Effects and Incremental Predictive Validity," *Journal of World Business* 56, no. 4 (2021): 101209, <https://doi.org/10.1016/j.jwb.2021.101209>.

<sup>43</sup> Yurou Wang and Jihong Zhang, "Examining the Relationship Between Cultural Intelligence and the Academic Performance of International Students: A Structural Equation Modeling Analysis," *SCIREA Journal of Sociology* 5, no. 1 (2021): 25–52, <https://doi.org/10.54647/sociology84488>.

<sup>44</sup> Fatih Şahin et al., "Measuring Cultural Intelligence in the Turkish Context," *International Journal of Selection and Assessment* 21, no. 2 (2013): 135–44, <https://doi.org/10.1111/ijsa.12027>.

<sup>45</sup> Wang and Zhang, "Examining the Relationship Between Cultural Intelligence and the Academic Performance of International Students: A Structural Equation Modeling Analysis."

<sup>46</sup> Subramaniam Ramalu et al., "Doing Business in the Global Arena: Examining the Relationship Between Cultural Intelligence and Cross-Cultural Adjustment," *Asian Academy of Management Journal* 15, no. 1 (2010): 79–97.

communicating with members of the host community. Wang and Zhang (2021)<sup>47</sup> similarly reported that motivational and behavioural CQ were significantly associated with higher self-reported GPA among students with international study experience.

Finally, a statistically significant positive relationship was found between task performance and behavioural CQ ( $r = .506, p < .001$ ). This moderate relationship indicates that students who are better able to modify their verbal and non-verbal behaviours according to cultural circumstances tend to demonstrate better task performance. Therefore, H4 was supported.

The behavioural dimension of CQ reflects the extent to which individuals can translate cultural awareness and motivation into appropriate actions. The ability to adjust communication styles, verbal expressions, and non-verbal behaviours may facilitate smoother interaction within unfamiliar cultural environments. Such behavioural flexibility can reduce communication barriers, improve social interaction, and help students devote greater attention to their academic responsibilities.

Overall, the findings demonstrate that all four dimensions of cultural intelligence—metacognitive, cognitive, motivational, and behavioural CQ—are positively and significantly associated with task performance among non-Malay and international students at UMK. The findings suggest that successful academic functioning in a culturally distinctive environment is not determined solely by students' knowledge of the host culture. It also involves their awareness of cultural differences, motivation to engage with the local environment, and capacity to adapt their behaviour appropriately.

## **Conclusion**

Cultural adaptation is an important factor in supporting the well-being and academic functioning of non-local and international students. Students are required not only to meet academic demands but also to adapt to unfamiliar cultural environments. In the context of Kelantan, where Malay cultural traditions are strongly embedded in everyday social life, non-Malay and international students may experience additional challenges in adjusting to local norms, language, and patterns of interaction.

This study employed the Cultural Intelligence (CQ) framework, consisting of metacognitive, cognitive, motivational, and behavioural dimensions, to examine the cultural adaptability of non-Malay and international students at Universiti Malaysia Kelantan (UMK). The findings showed that respondents demonstrated high levels of task performance and cultural intelligence across all four dimensions. Metacognitive CQ recorded the highest mean among the CQ dimensions, followed by motivational, behavioural, and cognitive CQ.

The correlation analysis further demonstrated that all four dimensions of cultural intelligence were positively and significantly associated with task performance. Metacognitive CQ showed the strongest relationship with task performance, followed by motivational CQ, while cognitive and behavioural CQ also demonstrated significant positive relationships. These findings indicate that students who are more aware of cultural differences, possess greater cultural knowledge, are more motivated to engage with

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<sup>47</sup> Wang and Zhang, "Examining the Relationship Between Cultural Intelligence and the Academic Performance of International Students: A Structural Equation Modeling Analysis."

unfamiliar cultural environments, and are able to adjust their behaviour appropriately tend to demonstrate better task performance.

The findings suggest that cultural intelligence can play an important role in helping non-Malay and international students adapt to the Kelantanese cultural environment while maintaining their academic responsibilities. Students with higher CQ may be better able to understand local cultural norms, interact effectively with members of the host community, and manage the social and academic demands associated with studying in a culturally distinctive setting.

This study has several limitations. First, it employed a quantitative approach only; therefore, future research could incorporate qualitative methods, such as focus group discussions or in-depth interviews, to explore students' experiences, perceptions, and challenges in developing cultural intelligence and adapting to local culture. Second, the study was cross-sectional and therefore could not capture changes in students' cultural intelligence over time. Longitudinal research could provide a clearer understanding of how CQ develops throughout the adaptation process. Third, the study was conducted only among students at Universiti Malaysia Kelantan, which may limit the generalisability of the findings to other institutional and cultural contexts.

Future studies could therefore employ mixed-methods and longitudinal designs and involve students from other higher learning institutions, particularly those located on the East Coast of Malaysia. Broader comparative studies may provide a more comprehensive understanding of the relationships among cultural intelligence, cultural adaptation, student well-being, and academic task performance. The findings may also provide a basis for universities to develop orientation, intercultural training, or student-support programmes aimed at strengthening cultural intelligence and supporting students' academic adjustment.

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