

Cultural Quotient in College Students

Ardana Reswari Miranda Ningrum
University of Muhammadiyah Malang
nareswari.arda@gmail.com

Abstract. This study aims to identify the cultural quotient with the sample of Malang city students and to explore various factors in gender, study majors, and residence domicile. Sample of this research is college students in Malang city who originated from Java island and other island. To measure cultural intelligence in students, the instrument used in this research is CQS (Cultural Quotient Scale). This study revealed that the great potential of cultural intelligence within Malang's students. The results showed that 53% of Malang city students showed high scores in cultural intelligence survey. In addition, this study also revealed demographic variables such as local / non-local domicile, education majors, and gender did not give a different influence on individual cultural intelligence.

Keywords: Cultural intelligence, students

Introduction

Globalization of communication and transportation technology enhances cross-regional human interaction. This encourages people from various values and norms to interact with each other. Increasing globalization also creates more and wider opportunities for people to work and study across region and cultures. The skills of to be able to adapt and succeed in a new environment are important to learn.

Culture quotient (CQ) can be a better predictor than IQ, resume, and individual experience in predicting success in the global era (Livermore, 2011). CQ is proven to increase the effectiveness of workers in culturally diverse situations. Research carried out in more than thirty countries over the past decade has shown that people with high CQ are better able to adapt to unpredictable life situations and work in today's global world. Cultural intelligence is found to be related to the performance of foreign workers from individualistic cultures on assignments in collectivist culture as well as on assignments in other individualistic cultures (Somoye, 2016). Therefore, topic of CQ is a concern in the study of cross-country industrial developments.

Not only on job performance, CQ was also found to have an effect on job satisfaction. Two aspects of CQ: motivational (MCQ) and behavior (BCQ) have a significant positive relationship with certain aspects of job satisfaction. In addition to the significant relationship between intercultural communication motivation and job satisfaction, motivation also has a significant moderating effect on the relationship between cultural intelligence and job satisfaction (Diao & Park, 2012).

CQ along with emotional quotient (EQ) and intelligence quotient (IQ) are proposed as three quotients that are essential for cross-cultural leadership. Global leaders need to have emotional awareness and sensitivity and be able to respond to different interpersonal environments and work situations between countries. CQ can moderate the relation of emotional intelligence (EQ),

analytical intelligence (IQ), and leadership behavior (Alon & Higgins, 2005) in the formation of effective global leadership. CQ is also a stronger predictor of IQ on the effectiveness of cross-border leadership of military officers (Rockstuhl, Seiler, Ang, Dyne, & Annen, 2011).

After industrial and organizational field, urgency of CQ has been realized in the academic field along with the increasing number of cross-cultural students. International students tend to experience difficulties in the cultural, social and academic transition and adjustment in the new environment while continuing higher education abroad. This situation can bring out a negative impact on the involvement of international students with campus life and academic achievement. CQ is proposed to be one solution to minimize adjusting difficulty of international students and increasing involvement and participation of foreign students at university. CQ can help the development of cross-cultural competencies of international students so that they can be effectively involved in academic and non-academic problems (Hartini, Yaakub, Abdul-Talib, & Saud, 2017). Higher cultural intelligence of individual will make higher ability of independent learning, self-management and willingness to learn (Hassani, 2015). Although it is considered as an important skill for students, CQ is also founded important to be developed in educators and administrative staff so that they can help international students adjust to the environment. Research on school administrative staff in Duzer shows that CQ and its sub-dimensions can significantly predict the role and behavior of cultural leadership (cultural leadership behaviors), a leadership style that aims to build and develop organizational culture and form and develop strong cultural structures and flexible for organizations (Göksoy, 2017).

Globalization and multinational work trending have increased demand for graduates who are able to operate in culturally diverse contexts. CQ can provide a beneficial effect for cross-cultural students and local

student's work performance in various professional fields. So that research related to CQ is needed as a material for psychological studies theoretically and applicatively for development of human resources. In addition, this research is needed as a comparison material and review of CQ measurements in the context of Indonesian society. Although it has been used extensively in various cultures, Schlager and Sarstedt (2016) found an invariant item problem in the results of CQ measurements that have been used in China and France. So researchers are expected to realize potential for measurement invariance regarding measurement of cultural intelligence standards and carefully compare the results of cross-country and cross-cultural studies.

According to Livermore (2011), cultural intelligence is an ability to function effectively in various cultural contexts, such as ethnic culture, generations, and organizations. CQ has some similarities with various approaches to cultural competence, but has different specifications because of their relevance to intelligence approach. Therefore, CQ is not only limited to measuring ability to understand different cultures, but also problem solving and effective adaptation for various cultural settings.

Various factors that can be related to CQ are revealed by field findings. Domicile was found to have no significant relationship with CQ. Atoum's study (2016) in Jordan, showed that there were no statistical differences in the cultural intelligence scores of all subjects based on residence. These results emphasize the nature of strong individual differences in CQ. Jordanian cities tend not to vary in terms of social communication skills and attitudes towards internationalization and cultural differences. This can occur because of the availability of media and communication facilities tend to be same in all cities in Jordan. Consequently, stimulation of CQ development is low, so CQ score tends to be not high and homogeneous.

Age, opportunity, and experience help individuals to develop ability to act effectively in various situations, including cross-cultural situations. The more individual learns through experience and becomes more mature by age, the greater ability of individual to reacts correctly in various cultural-related situations. So there is a possibility that two people from the same culture can act differently in business situations or in their interactions with others (Cavanaugh, 2007). This finding reinforces individual differences and the urgency of environmental stimulation in cultural intelligence.

Personality is also found to have a contribution to CQ. The results of Ang, Dyne, and Koh (2006) used the Big Five personality approach, showed that openness to experience is an important personality characteristic associated with a person's ability to function effectively in diverse cultural settings (CQ). This is interesting because openness is the only dimension that is significantly related to the four aspects of CQ, while other aspects only relate to one to three dimensions of CQ: conscientiousness and CQ metacognitive; agreeableness and emotional stability with CQ behavior;

extraversion with CQ cognition, motivation and behavior.

Although international experience is an important factor that contributes to the development of cultural intelligence (CQ), the effect on CQ still tends to be assumptive. Research by Chao, Takeuchi, and Farh (2017) on students enrolled in international exchange programs, found internal factors influenced relationship between experience and CQ. Implicit cultural beliefs (beliefs about the determination or discretion of cultural attributes) influence sensitivity of inter-cultural rejection, which has an impact on cross-cultural adjustment and CQ of student.

In addition to these four dimensions, recent studies propose several additional dimensions based on findings in specific cases. Sivasubramanian (2016) proposes two additional dimensions based on research conducted on Finnish leaders in Indian companies: CQ experience and CQ networks. The findings show that individuals cannot succeed in other cultures without having the ability to experience and understand things related to other cultures (Experiential CQ) and ability to build local relationships (Network CQ).

The current study aims to identify the level of cultural intelligence from the sample of Malang city students and to explore differences in cultural intelligence on variations in gender, major study, and domicile of residence of participants.

Method

The CQS (Cultural Quotient Scale) instrument was used in this study to measure participants' cultural intelligence. This scale has been developed for research purposes and has a patent under Cultural Intelligence Center (Eisenberg & Williams, 2012). This scale consists of 20 items and has a Likert scale form with a choice of responses from 1 (strongly disagree) to 7 (strongly agree). This scale was developed based on four factors/dimensions of cultural intelligence: CQ metacognitive (four items), cognitive CQ (six items), CQ motivation (five items), and CQ behavior (five items). In this study, the scale was adjusted in language and range of response options for Indonesian participants. The response options are trimmed to range 1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree). Respondents in Indonesia tend to experience confusion when presented with a scale with a large range of responses and tend to choose 'middle' or neutral responses. Based on these conditions, researchers decided to summarize the response choices from 7 to 5. Then to eliminate 'middle' or neutral response, response option was trimmed again to 4 choices.

This research using a survey method. Data collection is done by distributing Google form links. The scale was changed to Google form, then distributed population of Malang undergraduate students. Quota Sampling is chosen as a sampling method to ensure balance of the number of participants based on domicile so that data analysis can be done properly. The number of students

participating in this study was 181 students, consisting of 72 males and 109 females (domicile in Java Island: 95 people, domicile outside Java: 86 people).

Analysis of the data used version 21.00 of the Statistical Package for Social Sciences (SPSS) program to perform statistical data on descriptions and independent sample T-test.

Results

Based on CQST-Score analysis, 53% of participants had a high cultural intelligence score while 47% of participants showed a low score. This shows that in general, groups with high cultural intelligence scores only have a slight difference from the number of participants with a low cultural intelligence score.

Further analysis is done by conducting a different test on cultural intelligence with several demographic variables as independent variable. First, independent sample T-test is carried out on student cultural intelligence based on Javanese and non-Java domicile. Normality test reveals data are normally distributed. Furthermore, homogeneity test using levene test shows a probability value of 0.541, which means > 0.05 , the data is said to be homogeneous. The probability value for testing the independent sample t-test is 0.352. This shows there is no difference in cultural intelligence between Javanese and non-Javanese students in Malang. This gives other implications that local domicile (Javanese domicile) and non-local (outside Javanese domicile) do not give a difference to individual cultural intelligence. Even though nonlocal students come out of their original environment to study in new environments and interact with other cultures, this does not make nonlocal students significantly have an edge in cultural intelligence compared to local students.

Then, independent sample T-test was conducted to review cultural intelligence based on type of education majors students were undergoing. The types of majors are divided into two categories: social sciences and science. Probability value for different cultural intelligence tests based on majors is 0.287 which means > 0.05 then there is no difference in cultural intelligence between students majoring in social and science in Malang.

Lastly, analysis was conducted to see differences in cultural intelligence based on gender (male and female). Probability value for testing the independent sample t-test is 0.978. This means there is no difference in cultural intelligence between male and female students in Malang.

Discussion

Independent Sample T-Test test was conducted to review differences in cultural intelligence based on demographic variables domicile, education majors, and gender) did not show positive results. The results of the cultural intelligence score analysis are not well explained. The slight difference between participants who scored high

and low was only 6%. On the other hand, standard deviation indicates high variability in the data. This is an evidence of other factors that need to be considered and controlled to get a clearer picture of cultural intelligence in students and related variables that influence it.

Neither descriptive analysis on cultural intelligence and Independent Sample T-Test analysis using demographic variables cannot provide additional information about cultural intelligence in students. As result by Atoum's work (2016) shows, there were no statistical differences in the cultural intelligence scores of all subjects based on residence. These results emphasize individual differences in CQ. Availability of media and communication facilities that tend to be the same in all cities in Jordan have an impact to low stimulation of CQ development. Eventually, CQ score of citizens tend to be not high and homogeneous. Contrary to this study, where participants were students in the same city, but different domiciles, result showed CQ scores divided into two groups, high and low. Atoum continued, Jordanian cities tend not to vary in terms of social communication skills and attitudes towards internationalization and cultural differences. This can be assumed to be closely related to a low CQ score. Although this research confirms that besides the place of residence, local / non-local domicile, education department, and gender are also not proven to give statistical differences in cultural intelligence, but based result, important to consider diversity domiciles of student as a stimulation of CQ development.

Conclusion

Cultural intelligence has an important role for every individual who interacts with various cultural backgrounds. Cultural intelligence is needed to manage the stresses of the cultural shock that arises from activities in different cultures. Cultural intelligence is also needed to support the career competency as well as studies in multiethnic context. This study revealed that there is a great potential for cultural intelligence among Malang city students. 53% of Malang city students showed high scores on cultural intelligence surveys. In addition this study also revealed demographic variables such as local/non-local domicile, education majors, and gender did not give a different effect on individual cultural intelligence.

References

- Alon, I., & Higgins, J. M. (2005). Global Leadership Success through Emotional and Cultural Intelligences. *Business Horizons*, 48, 501–512. <https://doi.org/10.1016/j.bushor.2005.04.003>
- Ang, S., Dyne, L. Van, & Koh, C. (2006). Personality Correlates of the Four-Factor Model of Cultural Intelligence. *Group & Organization Management*, 31(1), 100–123. <https://doi.org/10.1177/1059601105275267>
- Atoum, A. (2016). Cultural Intelligence among Jordanian University Students. *International Journal of*

Education and Training (InjET), 2(1), 1–9.

- Cavanaugh, N. L. (2007). *Cultural Intelligence: Factors and Measurement*. Norges Handelshoyskole.
- Chao, M. M., Takeuchi, R., & Farh, J.-L. (2017). Enhancing Cultural Intelligence: The Roles of Implicit Culture Beliefs and Adjustment. *Personnel Psychology*, 70, 257–292. <https://doi.org/10.1111/peps.12142>
- Diao, A., & Park, D. S. (2012). Culturally Intelligent for Satisfied Workers in A Multinational Organization: Role of Intercultural Communication Motivation. *African Journal of Business Management*, 6(24), 7296–7309. <https://doi.org/10.5897/AJBM11.2424>
- Eisenberg, J., & Williams, G. (2012). The Effects of Cultural Intelligence on Multicultural Teams' Project Performance. In *Annual IACCM Conference* (pp. 1–18). Naples: Annual IACCM Conference.
- Göksoy, S. (2017). The Relationship Between Principals' Cultural Intelligence Levels and Their Cultural Leadership Behaviors. *Academic Journal*, 12(20), 988–995. <https://doi.org/10.5897/ERR2016.2982>
- Hartini, H., Yaakub, S., Abdul-Talib, A.-N., & Saud, M. B. (2017). The Effects of Cultural Intelligence on International Students' Engagement. *International Journal of Business, Economics and Law*, 12(2), 18–25.
- Hassani, F. (2015). Effect of Cultural Intelligence on Self-Directed Learning of Nursing Students. *Bimonthly of Education Strategies in Medical Sciences*, 8(2), 115–122.
- Livermore, D. (2011). *The Cultural Intelligence Difference: Master the One Skill You Can't Do Without in Today's Global Economy*. New York: AMACOM.
- Rockstuhl, T., Seiler, S., Ang, S., Dyne, L. Van, & Annen, H. (2011). Beyond General Intelligence (IQ) and Emotional Intelligence (EQ): The Role of Cultural Intelligence (CQ) on Cross-Border Leadership Effectiveness in a Globalized World. *Journal of Social Issues*, 67(4), 825–840.
- Schlagel, C., & Sarstedt, M. (2016). Assessing the Measurement Invariance of the Four-Dimensional Cultural Intelligence Scale Across Countries: A Composite Model Approach. *European Management Journal*, 1–17. <https://doi.org/10.1016/j.emj.2016.06.002>
- Sivasubramanian, N. B. (2016). *Managing Across Cultures with Cultural Intelligence Quotient (CQ): Study of Finnish Business Leaders Experience in India*. Vaasa.
- Somoye, J. T. (2016). *A Systematic Review of the Role of Cultural Intelligence (CQ) on Expatriate Outcomes*. University of Prince Edward Island.