# European Proceedings of Finance and Economics EpFE

www.europeanproceedings.com

e-ISSN: 2672-8958

DOI: 10.15405/epfe.23081.87

#### **ISEBA 2022**

International Symposium & Exhibition on Business and Accounting 2022

# EXPLORING CULTURE OF LEARNING USING HOFSTEDE'S DIMENSIONS: MALAYSIA VERSUS CHINA

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#### **Abstract**

The most frequent activities that occur in the context of education internationalization include collaborations, outbound student mobility, and enrolment of overseas students. This resulting student from various origin countries and cultural diversity increasingly occupying classrooms. Numerous cultural concerns may occur when instructors and students from one culture interact with students from another. Furthermore, the fate of China's broad Belt and Road Initiative (BRI), which calls for massive investment in and expansion of trade routes in the area, could have a significant impact on Asian business and the economy. This initiative again, intricately encountered massive cross-cultural issues by all parties involved. This initiative not only affects business people and managers, but also educators and students. Research on the consequences of cultural variations for teaching and learning has consequently been driven by this trend. This study analyses quantitative data comparing China and Malaysia undergraduate students from the perspective of learning behaviour as a group rather than as individual, using Hofstede's National Culture Model as theoretical background. It is found that applying Hofstede's dimensions directly in exploring culture of learning in the classroom may lead to error in conceptual framework and an act of misuse Hofstede's work. To generalise these speculations and apply cross-culture pedagogical methods correspond to this thinking may lead to flaw in assumptions and will not positively contribute to theory building as well as ineffectiveness in learning. We need to explore further using systematic conceptualisation and rigorous methods on the assertion of how Hofstede's dimensions impact learning cultures.

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Keywords: Cultural dimension, culture of learning, Hofstede



#### 1. Introduction

What transpires in relation to China's expansive Belt and Road Initiative (BRI), which demands for significant investment in the widening of trade channels in the region, may have a significant impact on business and the economy in Asia. This initiative intricately encountered massive cross-cultural issues by all parties involved. This initiative not only affects business people and managers, but also educators and students. Numerous cultural difficulties may emerge when teachers and students from one culture interact with students from another. Since at least the middle of the 20th century, cross-cultural pedagogy researchers have been alerting instructors and educators about these problems. However, a lot of studies utilised qualitative analysis, and the conclusions of these studies might be hard to relate to one another and occasionally contradict one another. It is still not possible to classify and categorise cultural concerns in the classroom globally, which would enable results of researches to be contextualized and academicians to modify the methodology used. Instead of such a narrow focus, researchers in this discipline typically employ study by Hofstede (1980) in explaining challenges of cultures that occur in learning environment. This study is proposed to analyse quantitative data comparing China and Malaysia undergraduate students in term of Culture of Learning as a group rather than as individual, using Hofstede's National Culture Model as theoretical background.

This study aims to examine Culture of Learning in two cultures: China and Malaysia. Malaysia and China are not only the two important economies in the One Belt and One Road initiatives, but also encapsulate two distinct cultural traditions. In their widely cited studies, Hofstede (1980, 1986), Hofstede and Hofstede (2001) together with a study in 2010 by Hofstede, Hofstede, and Minkov, identified a number of factors for determining national culture. These dimensions include "individualism vs. collectivism, power distance, uncertainty avoidance, long-term orientation, masculinity vs. femininity, and indulgence vs. restraint".

# 1.1. National culture

A nation's history, geography, customs, lifestyle, social conventions, and values are all examples of the material and spiritual products that humans have generated, inherited, and evolved. These manifestations are known as its culture. Though many philosophers, socialists, linguists, anthropologists, and others have attempted to describe culture from various angles up to this point, there is hardly any agreement on what culture actually is (Minkov, 2007). To understand the meaning of culture and how it functions in teaching and learning situation, it's certainly essential to appreciate what culture is all about. Anthropologists have debated its definition since at least the 1800s, and academic circles still argue about the term's correct definition and meaning (Minkov et al., 2013). Most authors believed that culture was the culmination of a group of people's aesthetic and intellectual endeavours in the early nineteenth century. Later, the definition was extended by Edward Tylor (1871) by labelling culture as a holistic and complex human endeavour that comprises "knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society". The explanation has since become fundamental concept of culture in anthropology (Spencer-Oatey, 2012). Cultural dimensions describe what further

psychological characteristics, such as values, beliefs, self-concepts, personality, and behaviours, vary between groups of culture.

In his book entitled Culture's Consequences, Hofstede (1980) argues that four dimensions formed the basis for identifying differences in national cultures. A component of a culture that may be assessed in relation to other culture is called a dimension. The main conclusion was that results on the dimensions were significantly correlated with conceptually important external factors (Hofstede, 1991). As a result, a mental health feature from Lynn and Hampson's (1975) study had a correlation with Uncertainty Avoidance scores; Scores for Power Distance include a political systems dimension from Gregg and Banks (1965) and an economic development dimension from Adelman and Morris (1967); Individualism and economic prosperity are corelated (Gross National Product per capita); as well as the amount of national income used for development with Femininity. There were increasing number of external validations reported, and over four hundred (400) substantial relationships between the IBM-based scores and the results of other research are included in the Culture's Consequences by Hofstede and Hofstede (2001), second edition. The disparities between countries that these dimensions represent are, in fact, fundamental and persistent, as evidenced by recent validations that indicate no loss of validity.

On the grounds of Far Eastern-focused study by Michael Harris Bond, psychologist from Canada, a fifth component termed "Long-Term vs. Short-Term Orientation" been inserted in the 1980s (Hofstede & Bond, 1988; Hofstede, 1991; Hofstede & Hofstede, 2001). According to study done in the 2000s using WorldValues Survey responses and conducted by the Bulgarian scholar Michael Minkov (2007), the sixth dimension was introduced (Hofstede et al., 2010).

#### 1.2. Culture of learning

A community or organisational environment that promotes and supports continuous learning and development, growth mindsets, knowledge-sharing, and enhanced performance for both individuals and the business is referred to as having a learning culture. One crucial aspect of culture is that it must be learnt, not inherited (Hofstede, 1991). Language and imitating others fostering education about various cultures. Cultures of learning, on the other hand, is a concept that implies that learning is cultural. Depending on their cultural background, people may have different perceptions and ideas related to teaching and learning (Cortazzi & Jin, 2013). Therefore, to enable learning across cultural populations, it is important to understand learning cultures. People who were raised in a certain cultural community will have an awareness of teaching techniques and classroom norms that correspond to those norms (Charlesworth, 2009). People could have a tendency to take their thoughts on education for granted because these standards are typically unconscious (Li, 2013), without realizing that they are cultural elements rather than an ultimate reality.

Joy and Kolb (2009) mentioned that a thorough framework for comparing learning cultures across nations has not yet been developed and widely incorporated, despite the fact that researchers have tried a variety of methods for distinguishing students based on their cultural backgrounds, from conceptual to practical, (Beckman-Brito, 2003; Parrish & Linder-VanBerschot, 2010). Thus, there is gap in the field.

There were attempts by several researchers to address this gap but more explorative studies are needed before we could clearly understand and settle down with generalised concept of culture of learning

applicable across difference national cultures. Parrish and Linder-VanBerschot, (2010) have tried to shed some light on these questions by conceptualising Cultural Dimensions of Learning Framework (CDLF). Eight cultural characteristics related to social interactions, epistemological convictions, and temporal perceptions are described by CDLF, along with examples of their ranges of variability as they could manifest in educational contexts. It was transformed the findings from Hofstede and Hofstede (2005), Nisbett and Masuda (2003), Levine (1997), Hall et al. (2018), and Lewis (2006), and explains how it was manifested in learning situations. The dimensions are (1) "equality and authority", (2) "individualism and collectivism", (3) "nurture and challenge", (4) "stability seeking and uncertainty acceptance", (5) "logic argumentation and being reasonable", (6) "causality and complex systems (analysis and holism)", (7) "clock time and event time", and (8) "linear time and cyclical time".

Since Hofstede's model is the one that scholars studying cultures of learning have embraced the most, the model is deployed in this study. Hofstede (1986) and Hofstede et al. (2010) offer a number of suggestions on how the framework might be beneficial for understanding classroom behaviour. In general, according to Minkov and Hofstede (2012), instructional teachers may, "...develop teaching toolsusing the tables of differences between societies scoring high and low on each dimension" (p. 3).

#### 1.2.1. Power distance

How much people within a community who wield less authority acknowledge and believe the uneven power distribution is referred to as "power distance" (Hofstede et al., 2010). Based on "role pairs" like boss-employee, parent-child, and teacher-student, because the powerful person is perceived as an unquestioned authority in culture with great level of power distance, the power dynamic may turn to authoritarian; The role pairs are more equitable in low power distance societies because the subordinate's involvement is encouraged and expected.

Numerous recommendations regarding how this dimension might appear in the classroom are also made (Hofstede, 1986; Hofstede et al., 2010). In a classroom with high power distance, for instance, students "expect [the] teacher to outline paths to follow," according to Hofstede (1986), whereas those in low power distance classes anticipate having more control over the procedure (p. 313).

#### 1.2.2. Individualism vs. collectivism

Specifically, "Individualism pertains to societies in which the links between people are loose... Collectivism as its opposite pertains to cultures in which individuals from birth onward are incorporated into strong, cohesive in-groups," according to Hofstede et al. (2010, p. 92). People with individualism culture be incline to normalise acting in each individual benefit compared to others as a whole, whereas collective cultures tend to prioritze others before their own personal. Regarding classroom culture, individualism vs. collectivism has also drawn a lot of attention. Collectivism may results students who "may be more tenacious in their efforts to obtain good educational achievements" as well as "may be more likely to accept support from their parents on schoolwork," according to Faitar (2006). Furthermore, in individualism culture, students may feel at ease speaking in front of the entire class and be driven by personal achievement, like accomplishment or extra marks; while students from collectivist cultures are

eISSN: 2672-8958

more likely to prefer working in groups and to capitulate; Oyserman and Lee (2008) speculate that a collectivist culture may manifest in the classroom as a reluctance to expose (p. 4).

#### 1.2.3. Uncertainty avoidance

Hofstede et al. (2010) explain: "Uncertainty avoidance can... be described as the degree to which the members of a society feel frightened by ambiguous or unknown situations". Among its many expressions are anxious tension and a desire for both written and unwritten laws (p. 191). Occasionally, ambiguity tolerance has been used by other writers to describe the opposite of uncertainty avoidance. People who belong to a culture that is highly uncertainty avoidance will avoid vagueness and prioritize timelines, strategies, as well as transparent solutions. Uncertainty can be accepted in cultures with low uncertainty avoidance; for example, ambiguous plans and timelines are acceptable, and a manager not necessarily need to have the right response upon each query to perform a great job. Considering this distinction in the context of societies with high uncertainty avoidance scales might hold onto the idea of an absolute truth, while societies with low uncertainty avoidance scales will typically hold onto a relativistic viewpoint (Hofstede et al., 2010).

Researchers working in classrooms have paid little to no attention to uncertainty avoidance. However, according to Hofstede (1986), students in countries with high levels of uncertainty avoidance like structured learning environments with specific goals, deadlines, and instructions as well as strict teachers who can clearly and precisely answer each student's question. In addition, he asserts that the assertion stated regarding power gap is akin to how educators perceive disagreement as betrayal.

#### 1.2.4. Masculinity vs. femininity

Female has the tendency of being extra submissive, delicate, and prioritize life value, whereas male is described as belligerent, harsh, and motivated by material accomplishment. This is how Hofstede et al. (2010) characterise the dimension of masculinity vs. femininity.

It is stated more explicitly elsewhere by the same authors, mentioned "Masculinity-femininity is about a stress on ego vs a stress on relationship with others, regardless of group ties" (Hofstede et al., 2010, p. 146). Despite using the term "Nurture vs. Challenge" orientation, Parrish and Linder-VanBerschot (2010) describes a concept that is akin to masculinity concept of Hofstede's and contends the causes of the level of rivalry that exists in learning. Hofstede et al. (2010) state that in general, "Masculinity-femininity is about a stress on ego versus a stress on relationship with others, regardless of group ties" (p. 146). According to another article by Hofstede et al. (2010), masculine and feminine cultures have different standards for evaluating teachers and students. The dominating criteria on the masculine side are the academic reputation and brilliance of the teachers, as well as the academic success of the students. On the female side, kids' socialisation and teachers' friendship with them are more important factors. (p. 162) According to Thowfeek and Jaafar's (2012) survey on the topic of blending virtual learning into curricular, "In a feminine culture, accepting a new system will be influenced by others in the organisation, whereas in a masculine culture, decision-making about adopting a new system is influenced by rewards, recognition, training, and improvement of the individuals" (p. 966).

In several ways, Hofstede et al. (2010) make an explicit connection between this dimension and classroom norms. Failure in school is described as "a disaster in a masculine culture... [whereas] failure in school in a feminine culture is a relatively minor incident" (p. 161), "...in the more feminine cultures, the average student is considered the norm, while in more masculine countries, the best students are the norm," (p. 160), and "...weak students are praised in feminine cultures, but only strong students are praised in masculine cultures" (p. 160). Among male student, they have the tendency to apply for taking again the subject when they fails, which would not happen in a feminine culture, according to the researchers, forceful behaviour and attempts at perfection are easily mocked there.

#### 1.2.5. Long-term orientation

Hofstede et al. (2010) elucidated long-term orientation as "the nurturing of virtues directed toward future benefits, particularly perseverance and thrift" by. There is not any explicit analysis of this notion in educational settings. Discussion of Confucianism's influence in the classroom has become more common, despite the fact that it is not the same construct as the one defined by Hofstede and Bond (1988), thus it is worth briefly revisiting. According to Chan (2008), Confucianism, for instance, "encourages the Chinese to respect hierarchical connections between individuals so that the professors are supposed to teach as well as lead students. If students are frequently invited in class to share their thoughts or find a solution on their own, many may believe that inadequate teaching is occurring.

Chan (2008) and Hofstede et al. (2010) both draw a similar conclusion on Confucianism and a tendency for rote learning. However, other researchers dispute this assertion (e.g. Ryan, 2013). The relationship between students in Confucian-Heritage Cultures (CHCs) and group learning is also in dispute. To support their assertion that "Learners from CHC environments prefer working in groups and perform better in groups," Nguyen et al. (2006) mention a number of research (p. 4). Agelasto and Adamson (1998) argues that Chinese and Korean students prefer working alone because they are too competitive to appreciate working in groups. Hofstede et al. (2010) assert that individuals from long- term-focused cultures are more adept at "synthetic" thinking, whereas individuals from short-term-focused cultures are more adept at "analytical" thinking.

#### 1.2.6. Indulgence vs. restraint

According to Hofstede et al. (2010), The likelihood to allow relatively unrestrained gratification of basic and normal human desires related to having fun and enjoying life is known as indulgence. Its opposite, restraint, expresses the conviction that such fulfilment must be restricted and governed by strict social norms.

However, not much has been written about this dimension by other scholars, presumably as a result of its relatively recent use. Hofstede (1986), Hofstede and Hofstede (2001), Hofstede, Hofstede, and Minkov, as well as other authors, do not directly link the newer dimensions to the classroom, in contrast to the earlier ones from Hofstede (1980). This indicates that there aren't any disagreements about this dimension in the literature that need to be settled for teachers just yet.

In order to distinguish between studies of learning cultures that utilise Hofstede's framework legitimately and those that use it improperly, it is necessary to show the empirical reality of his statements.

Even though there aren't yet any assertions regarding long-term orientation and indulgence vs. restraint, looking into how these factors relate to learning cultures now may help clear up any ambiguity in the future.

In order to cater the requirements, the following research questions are developed:

RQ1: Do new survey questions which reflect the assertions made by Hofstede (1986) and

Hofstede et al. (2010) on learning cultures are internally consistent?

RQ1a: If RQ1 is answered positively, is there any differences between demographic factors and

the six dimensions?

RQ2: If Research Questions 1 is answered negatively, can a specific dimensions model for

comprehending cultures of learning be produced using a Principal Components Analysis of survey

data on items linked to cultures of learning?

RQ2a: If RQ2 is answered positively, is there any differences in demographic factors in relations

with the new dimensions?

2. Research Methods

2.1. Participants

This study used empirical survey data of undergraduate students from various disciplines in both

Malaysia and China. Since this is an explorative and case research, a convenience sampling is employed.

Students from a university in Malaysia (specifically from Universiti Tenaga Nasional) and students from

China (specifically from Beijing Institute of Technology, Zhuhai (BITZH) Honors College) were selected

to participate in the study. Students from both universities will randomly asked to answer a self-

administered questionnaire. There are no Chinese translations of any study documents; they are all written

in English. as the present study focusing on students which English as main medium of instruction. Scales

for the constructs were tailored for the undergraduate environment and based on prior research when the

questionnaire was designed. Every item is scored using a seven-point Likert scale. Along with open-ended

questions, the survey also gathered respondent demographic data.

2.2. Data collection

Minkov & Hofstede (2012) recommend that 20 participants per country are adequate for a cross-

cultural analysis in national culture research; nevertheless, Minkov (2013) notes that 50 has typically been

considered as the minimum sample size for cross-cultural survey research. The current study was

participated by 157 Chinese and 150 Malaysian.

2.3. Description of survey

A printed questionnaire that includes 2 instructional example questions, a 23-item modified version

of Minkov & Hofstede (2012) Values Survey Module (VSM), 44 new questions about preferences and

behaviours in the classroom, 7 questions about demographics, and one open form for optional feedback

makes up the study's instrument.

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## 2.4. Content of questions

Questions for this study were developed based on direct adaptation of Minkov & Hofstede's (2012) VSM for student participants from Malaysia and China. The purpose of this study is to evaluate if Hofstede's assertions regarding how culture affects learning in the classroom can be supported by the analysis of six national cultural variables. Table 1 provides a table of specifications indicating which questions were created for which objective.

# 3. Findings

To address Research Question 1, a reliability test was run to check the internal consistency or reliability of the six dimensions. Only internally reliable dimensions are used for further analysis. This study employed a Cronbach's alpha threshold of 0.6. From Table 1, only one dimension i.e., Indulgence versus Restraint passed the Cronbach's alpha threshold of 0.6 and considered as having good reliability.

In sum, this study did not provide evidence in favour of generalising at the nation-level regarding preferences and behavioural norms in university classes based on Hofstede's claims about how his dimensions framework connects to them. As a result, it provides a negative response to Research Question 1 and somewhat supports the criticisms made by Signorini et al. (2009) that it is important to question the applicability of Hofstede's theories in the classroom.

**Table 1.** Table of specifications detailing which questions were developed for which purpose, number of items for each dimension, Cronbach's Alpha values

No	Dimension	Questions	Number of Items	Cronbach's Alpha
1	Power Distance	Q3 Q4 Q19 Q20 Q21 Q24 Q39 Q44 Q49 Q54	10	0.390
2	Individualism versus Collectivism	Q1 Q2 Q7 Q8 Q25 Q32 Q33 Q34 Q37 Q40	10	0.410
3	Uncertainty Avoidance	Q31 Q38 Q41 Q42 Q48 Q51 Q52 Q54 Q55 Q58 Q62 Q65 Q67	13	0.541
4	Masculinity versus Femininity	Q5 Q6 Q12 Q14 Q22 Q23 Q27 Q26 Q35 Q36 Q43 Q60 Q63	13	0.316
5	Long Term versus Short Term Orientation	Q9 Q10 Q45 Q47 Q50 Q51 Q57 Q59 Q66	9	0.536
6	Indulgence versus Restraint	Q11 Q13 Q15 Q16 Q17 Q18 Q28 Q29 Q30 Q47 Q56 Q61	12	0.629

To address RQ1a, this study conducted One-Way analysis of variance (ANOVA) for Indulgence versus Restraint by demographic factors which are Origin of Country, Gender, Age, and Year of study. This study did not perform further analysis for the rest of the dimensions as their Cronbach's alpha values are below threshold of 0.6.

The results of the analysis are shown in Table 2, Table 3, Table 4, and Table 5. The results show that there is significant different between Origin: Malaysian and Chinese, in relation with Indulgence factor.

The results also show, there are significant different by Age and Year of study. But there is no significant different of Indulgence versus Restraint with Gender.

Table 2. One-Way ANOVA (Indulgence by Origin)

	Sum of Squares	df	Mean Square	F	Sig.	
Between Groups	18.614	2	9.307	35.746	.000	
Within Groups	79.412	305	0.260			
Total	98.027	307				

**Table 3.** One-Way ANOVA (Indulgence by Gender)

	Sum of Squares	df	Mean Square	F	Sig.	
Between Groups	0.438	1	0.438	1.373	0.242	
Within Groups	97.589	306	0.319			
Total	98.027	307				

**Table 4.** One-Way ANOVA (Indulgence by Age)

•	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.514	2	1.257	4.014	0.019
Within Groups	95.513	305	0.313		
Total	98.027	307			

**Table 5.** One-Way ANOVA (Indulgence by Year)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.010	3	3.003	10.257	0.000
Within Groups	89.016	304	0.293		
Total	98.027	307			

Next, a new principle components analysis (PCA) of the complete survey data was carried out to answer Research Question 2 in order to evaluate whether or not Hofstede's model is the most accurate at forecasting national learning cultures features.

The whole set of country mean scores on all items is subjected to principal components analysis (Varimax rotation), which yields six dimensions with Eigenvalues larger than 1. The result shows a KMO value of 0.839 and a significance level for the Bartlett's Test value. These results can be viewed in Table 6. Thus, Research Question 2 is answered positively. Based on the questions of each factor, this study proposes the new conceptual dimensions. Further, this study conducted reliability test for each new factors or dimensions. The results are shown in Table 13. It was found that all factors or dimensions except Factor 3 are reliable.

Table 6. Factor analysis result - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Samp	.839	
Bartlett's Test of Sphericity	Approx. Chi-Square	2718.481
	df	435
	Sig.	.000

The first dimension with Cronbach's alpha of 0.818 is shown in Table 7.

**Table 7.** Survey items in dimension 1

Question	Quartien	Factor
Number	Question	Loading
2	"How important is it for you to have enough free time at school for your personal/home life?"	0.559
4	"How important is it to have professors you respect?"	0.580
6	"How important is it to get noticed when you do good work?"	0.572
7	"How important is it for your college major (area of study) to be respected by your family and friends?"	0.553
8	"How important is it for your college major (area of study) to get you a stable job?"	0.500
9	"How important is it to help your family and friends when they need something?"	0.594
10	"How important is it for you to be careful with money and not spend more than you need to?"	0.515
12	"Imagine your perfect job. How important would it be for you to have chances to be promoted?"	0.595
13	"How important is it for you to have enough free time for having fun?"	0.626
14	"Imagine your perfect job. How important would it be for you to live in an area you like?"	0.623

The second dimension with Cronbach's alpha of 0.613 is shown in Table 8.

**Table 8.** survey items in Dimension 2

Question Number	Question	Factor Loading
21	"How acceptable is it for a student to address the professor by name only? (for example: "Smith")"	0.623
22	"How acceptable is it for a student to fail an assignment in class?"	0.612
41	"When working as a group, is it more important for students to have detailed instructions about what to do or for them to have freedom to solve problems in their own way?"	0.589

The third dimension with Cronbach's alpha of 0.489 is shown in Table 9.

**Table 9.** Survey items in dimension 3

Question	Question	Factor
Number	Question	Loading
47	"Are you a happy person?"	0.527
50	"How proud are you to be a citizen of your country?"	0.501
51	"How is your health?"	0.580
62	"Who is more responsible for making learning happen in the classroom: the student or the professor?"	0.529
65	"What's more important for success at school, for a student to be naturally intelligent or for that student to work hard?"	0.559

The fourth dimension with Cronbach's alpha of 0.749 is shown in Table 10.

Table 10. Survey items in dimension 4

Question	Question	Factor
Number	Question	Loading
16	"How acceptable is it for a student to leave class to use the restroom (toilet)?"	0.527
17	"How acceptable is it for a student to skip class session because they are sick?"	0.502
19	"How acceptable is it for a student to address the professor by a name and a title? (for example: 'Professor Smith')"	0.609
20	"How acceptable is it for a student to address the professor by title only? (for example: 'Professor')"	0.544
24	"How acceptable is it for a student to correct the professor when the professor has made a mistake?"	0.556

The fifth dimension with Cronbach's alpha of 0.687 is shown in Table 11.

Table 11. Survey items in dimension 5

Question Number	Question	Factor Loading
44	"Are many students afraid to openly disagree with their professor?"	0.526
45	"Do many students find it embarrassing to admit in front of the class that their answer was wrong?"	0.565
46	"Do many students find it embarrassing to respond "I don't know" to a question from the professor?"	0.549
55	"How often do you feel nervous or tense?"	0.565
56	"How often do circumstances or other people prevent you from doing what you really want to do?"	0.571

The sixth dimension with Cronbach's alpha of 0.686 is shown in Table 12.

Table 12. Survey items in dimension 6

Question Number	Question	Factor Loading
18	"How acceptable is it for a student to skip a class session when they don't want to go?"	0.585
28	"How acceptable is it for a student to drink something during class?"	0.568
29	"How acceptable is it for a student to eat something during class?"	0.681
30	"How acceptable is it for a student to look at their cell phone during class?"	0.628

Table 13. Reliability test for new factors

Dimension	Questions	Number of Items	Cronbach's Alpha
Dimension 1	Q2 Q4 Q6 Q7 Q8 Q9 Q10 Q12 Q13 Q14	10	0.818
Dimension 2	Q21 Q22 Q41	3	0.613
Dimension 3	Q47 Q50 Q51 Q62 Q65	5	0.489
Dimension 4	Q16 Q17 Q19 Q24 Q20	5	0.749
Dimension 5	Q44 Q45 Q46 Q55 Q56	5	0.687
Dimension 6	Q18 Q28 Q29 Q30	4	0.686

Based on the questions in Dimension 1, this study suggests elements of convincing, certainty and guaranteed to explain the dimension. Questions in Dimension 2 explain about openness and flexibility, while questions in Dimension 3 promotes individualistic and self-priority. Next, questions in Dimension 4 is related to formalities and questions in Dimension 5 describe on the feeling of being reasonable. Finally, questions in Dimension 6 portrays individual self-determination.

# 4. Potential Contributions

This research examines how national culture affects learning styles of undergraduates as a whole not as individual. Theoretically, this research is expected to contribute to our understanding on how national culture affect the way undergraduate students learn and can be a guide for pedagogical approach for learning in different culture especially for comparison between Malaysia and China. This study is predicted to contribute to understanding of economic development in the one road and one belt initiative as to give guidance on how to effectively guide on the cross-culture learning and decision making.

#### 5. Limitations

This research examines how different culture communities affects culture of learning of undergraduates as a whole not as individual. Theoretically, this research contributes to our understanding on how national culture affect the way undergraduate students learn and can be a guide for pedagogical approach for learning in different culture especially for comparison between Malaysia and China. Nevertheless, the findings from this study should be taken within the limitations of the research. First, generalization of the findings should take into consideration of sample size of the respondents. Since this is an explorative case study research, comparing only students from two universities from two countries; China and Malaysia. For future study and to achieve acceptable generalisation, the sample size should be increase. Second, the choice of students participate in this study are English-medium students and they are exposed to cross-cultural environment. Thus, their National culture dimensions uniqueness may no longer unique to these students. Future research should address this issue as well. Third, the new dimensions of learning culture found by this study need to be tested using quantitative data. The results from this data will be useful to determine whether the new dimensions could serve the purpose of measuring the relationship of national culture and culture of learning.

#### 6. Conclusions

The findings of this study have broad ramifications, including the following: (a) Published Hofstede ratings might not be immediately relevant for determining culture of learning in modern, English-medium university classrooms per se. This is given the fact that culture of learning is no longer exists in isolation and not unique to certain culture communities. (b) Data from this study also revealed that, with contemporary, English-speaking university students, Hofstede's measurements could not be exactly replicated. The gist of the Hofstede model was created to enhance organisational practices from different cultural communities, and the framework developed were focused to achieve these purposes. The idea of directly using these dimensions to measure culture of learning will not suit the purpose as shown by data

from this study. Thus, (c) this study found that, as the principal component analysis result shows, a better model for predicting and measuring national culture influences on cultures of learning do exists. This requires us to further explore the concept and potential for further research.

To conclude, this research has demonstrated that applying Hofstede's dimensions directly in exploring culture of learning in the classroom may lead to error in conceptual framework and an act of misuse Hofstede's work. We need to explore further using systematic conceptualisation and rigorous methods on the assertion of how Hofstede's dimensions impact learning cultures. To generalise these speculations and apply cross-culture pedagogical methods correspond to this thinking may lead to flaw in assumptions and will not positively contribute to theory building as well as ineffectiveness in learning.

# Acknowledgment

This study is funded by Universiti Tenaga Nasional Pocket Grant (J510050002/P202226) and coordinated by Innovation and Research Management Centre (iRMC) of Universiti Tenaga Nasional.

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