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Cultural Values and Student Learning Style Preferences: Implications for Course Satisfaction[1]

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Abstract

This paper presents results from two studies that have been conducted with higher education business students at Victoria University, Melbourne Australia. The first study examines the relationship between business students' demographics, cultural values profile and the level of course satisfaction of 548 higher education business students. Similar to the first study Robertson and Hoffman's (2000) Cultural Values Scale, derived from the work of Hofstede (1980; 1991; 1998) was used to gauge students' cultural values profile, and a course satisfaction measure was derived from the work of Netemeyer, Krishnan, Pullig, Wang, Yagci, Dean, Ricks and Wirth (2004) and Harris and Uncles (2000). A major finding of this second study was that high Collectivism and high Uncertainty Avoidance ratings and Participant Age form the key determinants of Course Satisfaction.

The second study examines the relationship between business students' cultural values profile and the Teacher-Driven learning preferences of 364 higher education business students. Two empirically driven inventories were used: Robertson and Hoffman's (2000) Cultural Values Scale, derived from the work of Hofstede (1980; 1991; 1998), and Honey and Mumford's (1992) Learning Style Questionnaire, derived from Kolb's (1974; 1976) theoretical framework. A major finding of this study was that high Masculinity, high Confucian, high Uncertainty Avoidance and high Collectivism ratings form the characteristics of the Teacher-Driven learning style.

Introduction

During 2002 there were 157,296 international students enrolled within Australia's higher education sector representing 20.4% of Australia's higher education enrolments (Roach 2003). It is predicted this number will grow by 2025 to over one million students and be worth more than $38 billion (Roach 2003). Even though international student enrolments within Australia's tertiary education sector are growing at a significant rate there seems to be little research that delves into cultural influences on learning preferences. Therefore the questions "Is there a relationship between students' cultural values profile and their course satisfaction?" and "Is there a relationship between students' cultural values profile and their learning style preference?" have been rarely asked and this paper attempts to answer both of these questions.

Literature Review

Brand equity has five distinct areas consisting of brand loyalty, name awareness, perceived quality, brand associations and other proprietary assets (Aaker 1991). Brand loyalty and perceived quality (which also inherently includes satisfaction) are deemed to be the two appropriate components of brand equity to gauge student course experiences and their resultant influence on their willingness to refer the course and institution to others; and to repurchase another course from the university.

Rowley (1995) claims the quality of the educational experience of students rests with the institutions and staff. Service quality is significantly related to the circulation of information about university courses (Athiyaman 2000). The referral behaviour of students to prospective students is primarily motivated by learning experiences, and is one of the most powerful motivations for prospective students according to Mavondo, Zaman and Abubakar (2000). Mavondo et al. (2000) also found student satisfaction to be both directly and indirectly positively related to students' referring behaviour. This highlights the importance and implications of the student course experience, in dictating their willingness to refer and to repurchase.

Past experiences are positively associated to perceptions of performance and future intentions (Harris et al. 2000). In the airline industry Harris and Uncles (2000) found

that situational influences, like word of mouth also affect future intentions, and that future intentions are positively related to reuse. This relationship may also apply in higher education where student past experiences shape perceptions of course quality and satisfaction and their willingness to repurchase another course. These situational factors could include a student's demographics and cultural background.

Brand loyalty is developed from the purchase cycle elements of awareness, initial purchase and post purchase evaluation, decision to repurchase, and repurchase (Griffin 2002). There are two critical factors for loyalty to occur and these are the attachment to the product or service; and repeat purchase (Griffin 2002). The most common reasons for remaining loyal to an organisation are relational beliefs (Caldow 1998). Caldow claims that there are two frames of reference concerning loyalty by customers and these are friendliness and recognition given by the service providers. According to Caldow (1998) the main reason for customer switching behaviour is price and service offered by competitors, as previously highlighted by Griffin (2002).

All students who enter university have knowledge acquisition and learning behaviours. These have been shaped by students' personalities, abilities, and previous educational experiences (Ballard & Clanchy 1997). Ballard and Clanchy (1997) also stated that different cultural traditions embody different attitudes to knowledge that vary significantly among different cultures. Biggs (1996), Chan and Drover (1997), Watkins and Biggs (2001), and Ballard and Clanchy (1997), described international students from Asia as characteristically taking a low profile, rarely asking and answering questions, and rarely making public observations and criticisms. Therefore, do students' demographics and cultural values influence their course satisfaction?

> P_1: Students' Demography and Cultural Values Profile are positively related to their Course Satisfaction.

It is also well documented that students who are studying in a second language face added challenges, and tend to be unable to participate fully in classes (see Ballard et al. 1997; Cortazzi & Jin 1997; Furnham 1997; Macrae 1997). It is also increasingly important for Australian universities to embrace cultural differences in course design and implementation, as the majority of Australia's international student intake is from Asia where a 'Confucian' heritage is high (Barron & Arcodia 2002). A common

instrument to gauge these cultural differences is Hofstede's cultural dimensions (Robertson 2000). Hofstede (1980) proposed a four dimensional framework of national culture and more recently added a fifth dimension (Hofstede 1991; Hofstede & Bond 1988). Hofstede (1991) defined culture in terms of five dimensions power distance (this dimension measures the equality or inequality within society), uncertainty avoidance (the extent that members of a culture feel threatened by unstructured situations), individualism/collectivism (individualism is where the relationships between individuals are loose, collectivism is its opposite), masculinity/femininity (whether society reinforces traditional masculine values), and most recently Confucian dynamism (a culture's long term orientation).

The power distance dimension (Hofstede 1991; Hofstede & Hofstede 2005) measures people's perceptions of inequality within society and not wealth. Short power distance countries are more democratic in their approach to power. Hofstede (1980; 1991; 1998; Hofstede et al. 2005) describes the uncertainty avoidance dimension as the creation of complex rules to avoid risks in any situation. Hence the lower a society's uncertainty avoidance score the society is more comfortable with change and innovation. Within a higher education context students who hold low uncertainty avoidance scores may be more comfortable with educational innovations. Individualism measures whether the relationships between individuals are loose and collectivism measures whether relationships are highly respected and valued (Hofstede 1991; Hofstede et al. 2005). Hofstede (1991) and Hofstede and Hofstede (2005) found the top four individualist national cultures to be all Anglo-Saxon, headed by the USA followed by other European countries. On the collectivism dimension Anglo-Saxon countries tend to score low.

The masculinity dimension measures the level of assertiveness and competitiveness within a society (Hofstede 1998; Hofstede et al. 2005). Anglo-Saxon societies tend to score high on the masculinity dimension (that is low femininity). Femininity focuses on cooperation, good working relationships and security within society (Hofstede 1991; 1998; Hofstede et al. 2005). Asian countries except Japan score high on this dimension. Therefore within a higher education context, students who have high masculine beliefs can be thought of as being goal driven with the aim of quick course completion. This could influence students to maintain a Student-Driven learning

preference to learning. In contrast to this, students who hold high feminine (low masculine) beliefs still see goals as important but also see knowledge and experience as equally important.

Hofstede (1991) and Hofstede et al. (2005) describe the Confucian dynamism otherwise discussed as the Short-Term/Long-Term orientation dimension as perseverance, thrift, having a sense of shame and ordering relationships by status. He found China and other Far Eastern countries score high on this dimension and Anglo-Saxon countries score low. Therefore a Teacher-Driven Learning Preference can be defined as: high Femininity, that is low Masculinity, high Power Distance, high Uncertainty Avoidance, high Confucian Dynamism (high Confucian) and high Collectivism that is low Individualism.

As an increasing number of students in Australian universities are international students from non Anglo-Saxon backgrounds (Roach 2003) it is becoming more important for universities to understand student cultural differences. A large proportion of Australia's international students have a Chinese background. Confucianism according to Chan (1999) encourages the Chinese to respect hierarchical relationships, hence within an educational context the role of teachers is seen to teach and guide pupils. Ballard and Clanchy (1997) found the following characteristics to be the norm for Asian students' study regime: attend all classes, take detailed notes, avoid class discussions and only ask questions for clarity in private with the lecturer. Therefore what constitutes 'good learning' may also be culturally dependent.

As identified earlier there are a number of problems that international students face when studying abroad and these include social-cultural adjustment, language, and learning/teaching problems due to culture (Biggs 2000). Therefore universities need to develop an understanding of different learning preferences, to ensure students' course experiences remain satisfactory. There are a number of different theoretical models to classify learning styles (see Barron et al. 2002; De Ciantis & Kirton 1996; De Vita 2001).

Kolb's (1976) Learning Style Inventory, Honey and Mumford's (1992) Learning Style Questionnaire and the Surface and Deep Learning continuum are three of the popular instruments used for gauging learning style preferences (see: Barron et al. 2002; Brown 2003a; Brown 2003b; Case & Gunstone 2003; De Ciantis et al. 1996; De Vita 2001; Drew & Ottewill 1998; Goby & Lewis 2000; Hassall & Joyce 2001; Henson & Hwang 2002; Jones, Reichard, & Mokhtari 2003; Landrum 1999; Loo 2002; Passman 2003; Sharp 1997; Simon 2000; Van Zwanenberg, Wilkinson, & Anderson 2000; Zhang & Sternberg 2000).

The aim of Kolb's (1976) Learning Style Inventory was to measure participants' learning styles on four distinct dimensions: the Concrete Experience (CE), the Reflective Observer (RO), Abstract Conceptualisation (AC) and Active Experimentation (AE). Kolb's (1976) Learning Style Inventory and theoretical framework was built upon by Honey and Mumford (1992) with their Learning Style Questionnaire. Similar to Kolb's Learning Style Inventory, Honey and Mumford's (1992) Learning Style Questionnaire also presented four learning styles: activists, reflectors, theorists and pragmatists.

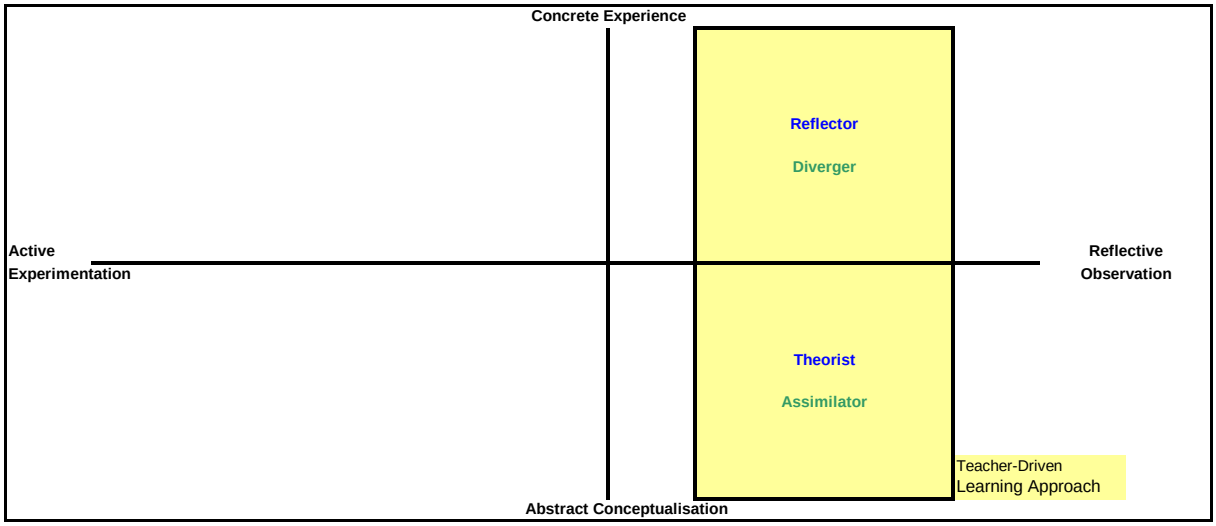
Good learning has been defined by Honey and Mumford (1992) as when people move through all stages of learning. According to the Learning Style Questionnaire, activists prefer learning from situations where they are involved in activities like business games and competitive teamwork tasks. Reflectors have a preference to take a step back from the situation to listen and observe. Theorists prefer structure, where activities are offered as part of a concept, model or theory. Pragmatists like activities where the subject matter directly links to a job task or opportunity.

Honey and Mumford's (1992) Learning Style Questionnaire has been reviewed by a number of authors (Caple & Martin 1994; De Ciantis et al. 1996; Van Zwanenberg et al. 2000). Caple and Martin (1994) stated that the Learning Style Questionnaire clearly implied that certain learning styles had distinct and consistent behavioural characteristics. The reliability of the Learning Style Questionnaire was acceptable across a number of different studies (De Ciantis et al. 1996; Van Zwanenberg et al. 2000). Mumford (1996b) suggests that any learning style preference obtained through using the Learning Style Questionnaire is not stagnant but a preference that changes

over time. Studies conducted within an Australian higher education setting (Barron et al. 2002; Volet & Renshaw 1996) validated Mumford's (1996b) assertion. These studies found that Asian students studying courses in Australia shifted from a reflective theorist preference to an active preference over time. This suggests that students' cultural value profiles and experiences may affect learning style preferences.

Due to their shared history, Kolb's (1976) Learning Style Inventory and Honey and Mumford's (1992) Learning Style Questionnaire have conceptual similarities. Figure 1 illustrates this conceptual overlap and uses Kolb's (1976) concrete experience, reflective observation, abstract conceptualisation and active experimentation dimensions as determining axes. It becomes apparent that the Kolb 'Diverger' construct (individuals who favour Concrete Experience and Reflective Observation), and Honey and Mumford's 'Reflector' construct gauge a similar type of learner; and Kolb's 'Assimilator' construct (individuals who favour Abstract Conceptualisation and Reflective Observation), and Honey and Mumford's 'Theorist' construct, gauge another type of learner. This paper suggests that the Teacher-Driven learning preference closely corresponds to the Diverger/Reflector construct, and the Assimilator/Theorist construct, as highlighted in Figure 1. It is a broad reflector/theorist learning style preference response to material given.

Figure 1: Commonalities between Teacher-Driven Learning, the Kolb Learning Style Inventory, and Honey and Mumford's Learning Style Questionnaire



This Teacher-Driven learning style preference is based on deep and highly structured learning and is consistent with Hancock et al. (2002), Brown (2003b) and Hassall and

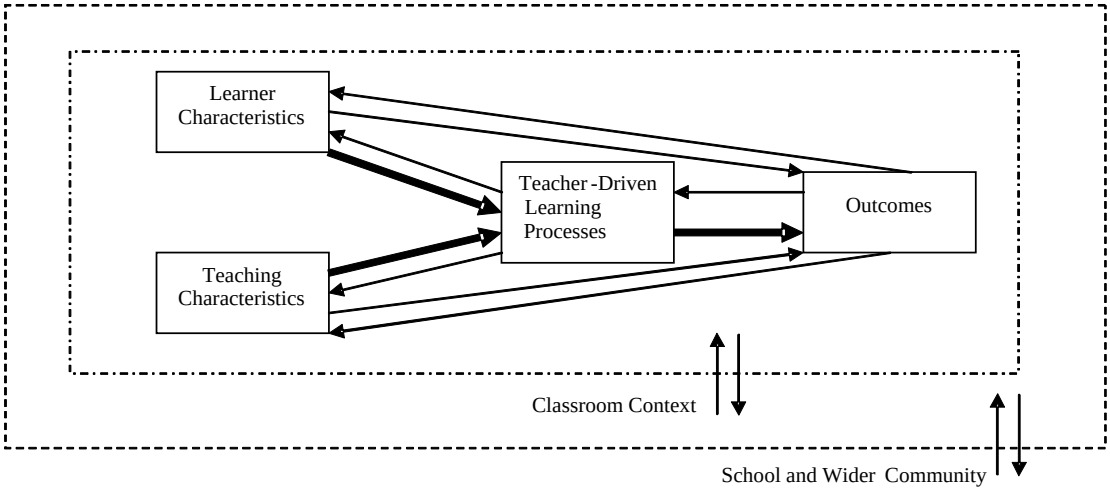
Joyce's (2001) definitions on deep learning as well as Honey and Mumford's (1992; 1995) reflective-theorist dimension. This reflective-theorist dimension (Honey et al. 1992; 1995) is where learners reflect on what they have been taught and use theoretical frameworks to form conclusions. This is also consistent with Lavelle and Guarino (2003), Webb (1997) and Campbell et al. (2001) descriptions of deep learning. In contrast to this, Student-Driven learning can be conceptualised as a preference for surface or broad ranged learning based on active experimentation. This is consistent with Honey and Mumford's (1992; 1995) pragmatic-activist dimension.

The Teacher-Driven (Deep) learning preference therefore can be seen to revolve around a highly structured environment in which the teacher organises the learning tasks and time, presents material in accordance with teaching objectives and the methods for instruction (Brown 2003b; Hancock et al. 2002) and a correspondingly low level of active experimentation by students. Within a Teacher-Driven environment the teacher is dominant within the classroom setting, establishing and enforcing the rules. The teacher structures the learning tasks, method of task completion, time allocation; explains the lesson and actively ensures students are on track, responds to students with direct 'correct answer' or 'incorrect answer' feedback, and summarises key points of lessons (Brown 2003b; Hancock et al. 2002). Therefore the Teacher-Driven learning preference is where the learner attempts to grasp the subject area within a theoretical framework of ideas, concepts and self reflection (Hassall et al. 2001).

An interesting finding (Hancock et al. 2002) was that students within a Teacher-Driven classroom and a deep learning preference, do not necessarily perform better academically than those students who adopt a Student-Driven classroom and a surface learning preference, which encourages a more active pragmatic approach to learning. However, Case and Gunstone (2003) found that the deeper the Teacher-Driven learning preference the greater the sophisticated learning outcomes achieved. Nevertheless such sophisticated learning is not necessarily reflected in higher academic grades (Hancock et al. 2002). Indeed, Passman (2003) found that students were progressing more academically with the Student-Driven preference. Therefore the normative assumption that deep learning is a better form of learning than surface learning should not be unquestionably accepted.

In Anglo-Saxon societies 'good learning' has often been equated with deep learning and Teacher-Driven learning preference (Biggs 1994). Within this paradigm good learning occurs when abstract frameworks are used by students to conceptualize tasks, plan and monitor their progress, interpret outcomes and perceive learning as both enjoyable and results based (Biggs 1994; Hassall et al. 2001). A different perspective of good learning is presented by Biggs and Moore (1993) although it is still a normative perspective, it depicts good learning occurring when teachers focus on Student-Driven learning by assigning cooperative group work tasks, contextual teaching within small groups and that assessment addresses high levels of cognitive outcomes in a non-threatening classroom climate, (see Figure 2). Such a style would allow active experimentation by students and be less curriculum-driven than the Teacher-Driven learning process. Clearly not all researchers agree with such normative perspectives of good learning, (see: Biggs 1994; Chan et al. 1997; Chan 1999; Woodrow & Sham 1998) and prefer to view good learning as how different learning styles of students can be responded to by the higher education sector (Chan et al., 1997). However some researchers have demised what Honey and Mumford (1992) have called the activist, pragmatist's styles or Kolb's (1976) active experimenters as 'surface' learners (Case et al. 2003; Hassall et al. 2001).

Figure 2: Model of Classroom Learning



(Source: Biggs et al, 1993, in SIN Research Matters (1996), p.1)

One of the most commonly used instruments for gauging learning predispositions is Honey and Mumford's (1992) Learning Style Questionnaire (LSQ), which is a development from Kolb's theoretical framework.

Studies conducted in Australia to gauge students' learning style preferences, found that Chinese/Confucian heritage students are highly adaptable and maintain a high achievement orientation (Barron et al. 2002; Volet et al. 1996). These students have also been described as being strongly influenced by the Chinese culture and Confucian/collectivist beliefs (see: Biggs 1994; Chan 1999; Woodrow & Sham 1997; 1998). Mohamed's (1994) study which focused on Malaysian students' learning preferences also found a 'theorist learning style preference', which confirmed Chan's (1999), Woodrow and Sham's (1997; 1998) and Bigg's (1994) views. Therefore these students would have a high preference towards Teacher-Driven Learning.

Using the LSQ (1992), Barron and Arcodia (2002) and Volet and Renshaw (1996) found Confucian students studying business courses have a reflector learning style preference in their homelands which is different to Mohamed's (1994) findings. Western students in these courses had an 'Activist' learning style orientation. Barron and Arcodia (2002) and Volet and Renshaw (1996), found that Confucian students over a period of time while studying in Australia, adopted an 'Activist' learning style preference, similar to their Western peers. Thus, it suggests that a person's demographics and cultural beliefs impact upon learning. It also highlights that Asian students are highly adaptable and flexible learners (Biggs 2000; Lee 1996; Stevenson & Stigler 1992). Therefore supporting Mumford's (1996a) assertion that a strong or low orientation to a particular learning style is not one of a fixed trait, but a preference that changes over time.

This preceding discussion on the possible relationship between business students' cultural values profile and the Teacher-Driven learning preferences gives rise to the following Proposition:

> P_2: That high Femininity that is low Masculinity, high Power Distance, Uncertainty Avoidance, Confucian Dynamism (Confucian) and Collectivism that is low Individualism is positively related to the

Teacher-Driven Learning Preference (the Reflector and Theorist Learning Styles).

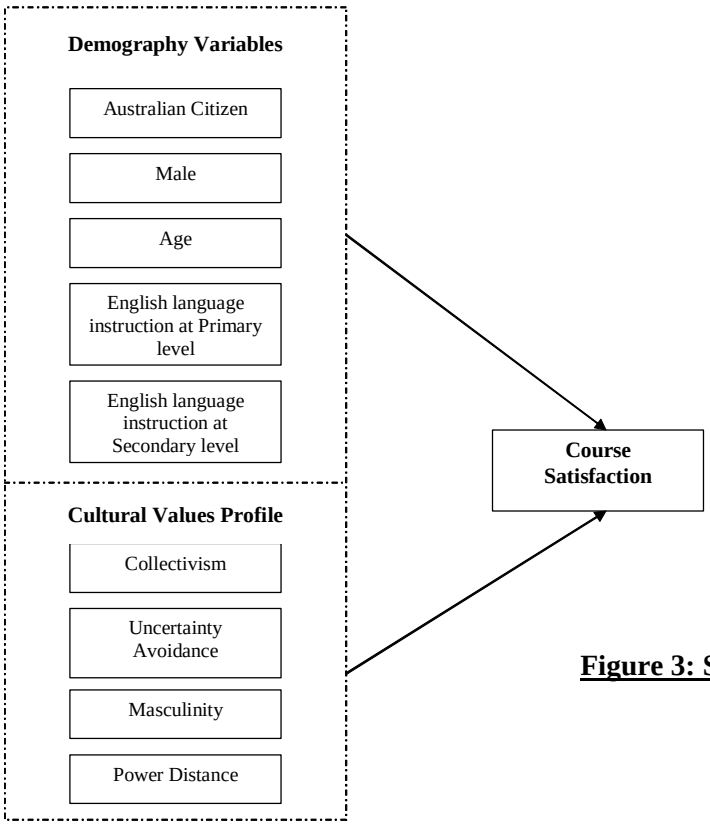


Figure 3: Study 1 Variable Summary

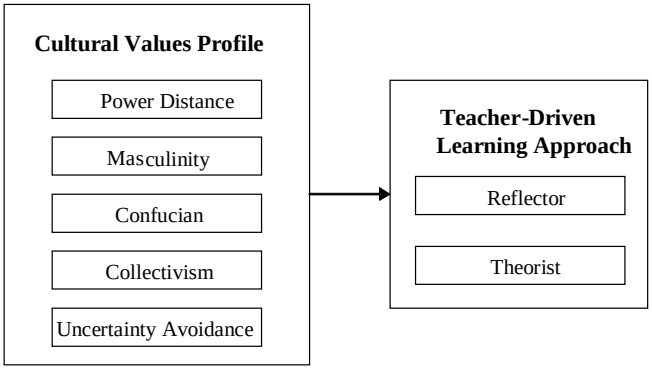


Figure 4: Study 2 Variable Summary

Methodology

Study 1

The sample consisted of an opportunity sample of 548 higher education business students studying at Victoria University's CBD campuses in Melbourne, Australia. A total of 750 questionnaires were distributed. There was a 73 percent return rate. Cultural values data was collected via Robertson and Hoffman's (2000) scale because it was designed to measure an individual's beliefs along each of Hofstede's cultural dimensions. The cultural values were coded: 1= strongly disagree through to 7 = strongly agree. The course satisfaction measure was a new one developed from the work of Netemeyer, Krishnan, Pullig, Wang, Yagci, Dean, Ricks and Wirth (2004) and Harris and Uncles (2000). The course satisfaction items were also coded: 1 = strongly disagree to 7 = strongly agree. Data was entered into the SPSS version 11 statistical program. Proposition 1 was operationalised as one hypothesis:

> H_1: Students' cultural values: high Collectivism, high Uncertainty Avoidance, high Masculinity and high Power Distance and demography: Australian citizen, Male, Age, English language instruction at Primary level and English language instruction at secondary level, are positively associated to course satisfaction.

Study 2

An opportunity sample of higher education business students was chosen from Victoria University, Australia. A total of 455 students were approached to participate in the study. There was an 80 percent return rate giving a final sample of 364. Cultural values data was collected via Robertson and Hoffman's (2000) scale because it was designed to measure an individual's beliefs along each of Hofstede's cultural dimensions. The cultural values were coded: 1= strongly disagree through to 5 = strongly agree. The Teacher-Driven learning style preference was measured as being present within respondents' reflector and theorist learning styles and therefore Honey and Mumford's (1992) Learning Style Questionnaire was used to collect Reflector and Theorist learning styles data from the respondents. Students rated on a six point likert scale (0 to 5) to what extent they agreed with these statements. The learning preferences were coded: 0 = strongly disagree to 5 = strongly agree. Data was entered into the SPSS version 11 statistical program. Proposition 2 was operationalised as two hypotheses:

H_2: High Femininity (low Masculinity), high Power Distance, Uncertainty Avoidance, Confucian Dynamism (Confucian) and Collectivism (low Individualism) is positively associated to Honey and Mumford's (1992) Theorist Learning Style.

H_3: High Femininity (low Masculinity), high Power Distance, Uncertainty Avoidance, Confucian Dynamism (Confucian) and Collectivism (low Individualism) is positively associated to Honey and Mumford's (1992) Reflector Learning Style.

Results

Study 1

The results of the first study are presented in two parts. The first is an examination of the correlations between the variables within this study. The second section discusses the Ordinary Least Squares (OLS) regression that tested Hypothesis 1. The cultural dimensions within this study had adequate reliabilities: Individualism/Collectivism (Collect) 0.80, Uncertainty Avoidance (Uncert_H) 0.85, Masculinity/Femininity (Masculin) 0.88, and Power Distance (Power_H) 0.83. The Course Satisfaction (Satisfy) dimension also had a very strong alpha reliability of 0.92. The correlation coefficients for the Cultural Values Profile variables: Individualism/Collectivism (Collect), Uncertainty Avoidance (Uncert_H), Masculinity/Femininity (Masculin), and Power Distance (Power_H); the Demography variables: Australian Citizen (Aust_Cit), Male, Age, English language instruction at Primary level (Eng_Prim) and English language instruction at Secondary level (Eng_Sec) and the Course Satisfaction (Satisfy) variable are presented in Table 1 below.

The demography variable Aust_Cit has weak to respectable negative associations with Age, Eng_Prim, and Eng_Sec, R = -0.146, -0.321, -0.291 respectively. Aust_Cit also has a weak positive association with the cultural variable Masculin, R = 0.110 as illustrated in Table 1. Male, another demography variable as highlighted in Table 1 has weak to respectable positive associations with Age, and the cultural variables: Collect, Uncert_H, Masculin, R = 0.167, 0.103, 0.090, and 0.259 respectively. Table 1 also shows the demography variable Age to have negative weak to respectable associations with the cultural variables: Collect, R= -0.126; Masculin, R = -0.215; and

Power_H, R = -0.206. Age also has a weak positive association with Satisfy, R = 0.114. The Eng_Prim demography variable as presented in Table 1 has weak to strong positive associations with the demography variable Eng_Sec, R = 0.790 and the cultural variable Uncert_H, R = 0.094. Table 1 illustrates that there are weak to respectable significant associations between the cultural variables Collect and Uncert_H, Masculin and Power_H, R = 0.423, 0.264 and 0.212 respectively; and the Satisfy variable R = 0.242. The culture variable Uncert_H has a weak negative association with Power_H R = -0.111 and a weak positive association with the variable Satisfy R = 0.272, see Table 1. The Masculin culture variable has a moderate positive association with Power_H, R = 0.599 as highlighted in Table 1.

Table 1: Study 1 Correlations

	1	2	3	4	5	6	7	8	9	10
1. AUST_CIT	1.000									
2. MALE	-0.075	1.000								
3. AGE	-0.146 **	0.167 **	1.000							
4. ENG_PRIM	-0.321 **	0.003	-0.006	1.000						
5. ENG_SECO	-0.291 **	0.029	-0.040	0.790 **	1.000					
6. COLLECT	-0.028	0.103 *	-0.126 **	0.001	0.063	1.000				
7. UNCERT_H	-0.054	0.090 *	-0.026	0.094 *	0.070	0.423 **	1.000			
8. MASCULIN	0.110 *	0.259 **	-0.215 **	-0.051	0.018	0.264 **	-0.026	1.000		
9. POWER_H	0.045	0.046	-0.206 **	-0.040	0.036	0.212 **	-0.111 **	0.599 **	1.000	
10. SATISFY	0.009	0.075	0.114 **	0.019	0.026	0.242 **	0.272 **	0.067	0.065	1.000

***Correlation is significant at the 0.01 level (2-tailed), *Correlation is significant at the 0.05 level (2-tailed).*

The second section comprises of one OLS regression that was conducted to test Hypothesis 1. The independent variables were: Collect, Uncert_H, Masculin, Power_H, Aust_Cit, Male, Age, Eng_Prim and Eng_Sec. The dependent variable was the Satisfy variable. As can be seen in Table 1, Age, Collect and Uncert_H were significantly correlated at the zero-order level with the Satisfy variable. A multiple regression analysis was conducted between the Satisfy variable and the independent variables of: Collect, Uncert_H, Masculin, Power_H, Aust_Cit, Male, Age, Eng_Prim and Eng_Sec. The multiple *R* (0.351) for the regression was significantly different from zero, ($F(9,538) = 8.398$, $p<0.001$). In total 12.3% (10.9% adjusted) of variation in the Satisfy variable was accounted by the variables ($R^2 = 0.123$, *adj.* $R^2 = 0.109$). Tables 2 and 3 below indicate that the standardized regression coefficient (Beta) for three variables: Collect, Uncert_H and Age were significant. Of the 12.3% explained variance, the squared semi-partial correlations show that Uncert_H explained 4.2%; Age explained 2.7% and Collect explained 1.7%.

Table 2: Satisfy Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.351[a]	.123	.109	1.3063

a. Predictors: (Constant), ENG_SECO, MASCULIN, UNCERT_H, AGE, AUST_CIT, MALE, COLLECT, POWER_H, ENG_PRIM

Table 3: Satisfy OLS Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.406	.520		.781	.435			
	COLLECT	.198	.064	.147	3.100	.002	.242	.132	.125
	UNCERT_H	.327	.067	.224	4.843	.000	.272	.204	.196
	MASCULIN	1.149E-02	.049	.013	.234	.815	.067	.010	.009
	POWER_H	9.168E-02	.058	.083	1.593	.112	.065	.069	.064
	AUST_CIT	7.258E-03	.006	.051	1.177	.240	.009	.051	.048
	MALE	2.195E-02	.121	.008	.182	.856	.075	.008	.007
	AGE	3.536E-02	.009	.165	3.826	.000	.114	.163	.154
	ENG_PRIM	3.687E-02	.230	.011	.160	.873	.019	.007	.006
	ENG_SECO	4.145E-02	.249	.011	.167	.868	.026	.007	.007

a. Dependent Variable: SATISFY

Study 2

The results of the second study are presented in two parts. The first is an examination of the correlations between the variables within this study. The second section discusses the Ordinary Least Squares (OLS) regressions that tested Hypotheses 2 and 3. The cultural dimensions within this study had adequate reliabilities: Individualism/Collectivism (Collectivism) 0.65, Masculinity/Femininity (Masculinity) 0.84, Power Distance 0.73, Uncertainty Avoidance 0.83 and Confucian Dynamism (Confucian) 0.62. However the past/present subset of Confucian Dynamism did not statistically hold in this sample. The learning style dimensions also had strong alpha reliabilities: Reflector 0.79 and Theorist 0.74. The correlation coefficients for the Cultural Values Profile variables: Confucian, Power Distance, Masculinity, Uncertainty Avoidance, and Collectivism; and the Teacher-Driven Learning Preference variables: Reflector and Theorist are presented in Table 3 below.

Table 3 illustrates that there are weak to respectable significant associations between the cultural variables Confucian and Power Distance; Masculinity; Uncertainty Avoidance; Collectivism; and the Theorist and Reflector learning styles, R = 0.28, 0.24, 0.32, 0.22, 0.35 and 0.26 respectively. Power Distance also has a strong association with the cultural variable Masculinity and a weak but significant association with the Theorist learning style, R = 0.51 and 0.17 respectively as shown in Table 3 below. Table 3 also highlights that Masculinity has a weak but significant negative association with the cultural variable Uncertainty Avoidance (R = -0.17), and a positive weak but significant association with the Theorist learning style (R = 0.16). Uncertainty Avoidance has a significant modest to respectable positive association with the Collectivism cultural variable and the Theorist and Reflector learning styles, R = 0.34, 0.29 and 0.24 respectively as can be seen in Table 3. The Collectivism variable also has a weak but significant association with the Theorist and Reflector learning styles, R = 0.14 and 0.21 respectively. There also seems to be a very strong positive association between the Theorist and Reflector learning styles, R = 0.61 as highlighted in Table 3.

Table 3: Correlation Coefficients

Variable	1	2	3	4	5	6	7
1. Confucian	1.00						
2. Power Distance	0.282**	1.00					
3. Masculinity	0.24**	0.507**	1.00				
4. Uncertainty Avoidance	0.322**	-0.10	-0.166**	1.00			
5. Collectivism	0.216**	-0.01	0.04	0.34**	1.00		
6. Theorist	0.348**	0.166**	0.162**	0.291**	0.138**	1.00	
7. Reflector	0.256**	0.08	0.08	0.239**	0.213**	0.61**	1.00

*N = 364, ** Correlation is significant at the 0.01 level (2-tailed).*

The second section comprises two OLS regressions that were conducted to test the two hypotheses. The independent variables were: Power Distance, Masculinity, Confucian, Collectivism and Uncertainty Avoidance. The dependent variables were: the Theorist learning style and the Reflector learning style in turn. As can be seen in Table 3, Confucian, Power Distance, Masculinity, Uncertainty Avoidance and Collectivism were significantly correlated at the zero-order level with the Theorist learning style. A multiple regression analysis was conducted between the Theorist learning style and the independent variables of Confucian, Power Distance,

Masculinity, Uncertainty Avoidance, and Collectivism. The multiple *R* (0.423) for the regression was significantly different from zero, ($F(5,358) = 15.607$, $p<0.001$). In total 18% (17% adjusted) of variation in the Theorist learning style was accounted by the variables ($R^2 = 0.179$, *adj.* $R^2 = 0.167$). Tables 4 and 5 below indicate that the standardized regression coefficient (Beta) for three variables: Uncertainty Avoidance, Confucian and Masculinity were significant. Of the 18% explained variance, the squared semi-partial correlations show that Uncertainty explained 4.5%; Confucian explained 3.8%; and Masculinity explained 0.9%. Though the variables Power Distance and Collectivism were also highly correlated to the Theorist learning style, they did not produce significant semi-partial correlations when the other variables in the equation were controlled for.

Table 4: Theorist Learning Style Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.423[a]	.179	.167	.4226

a. Predictors: (Constant), Uncertainty Avoidance, Power Distance, Collectivism, Confucian, Masculinity

Table 5: Theorist Learning Style OLS Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.717	.180		9.546	.000			
	Power Distance	4.736E-02	.038	.071	1.242	.215	.166	.066	.059
	Masculinity	5.948E-02	.030	.113	1.977	.049	.162	.104	.095
	Confucian	.138	.034	.222	4.042	.000	.348	.209	.194
	Collectivism	2.481E-03	.041	.003	.061	.952	.138	.003	.003
	Uncertainty Avoidance	.163	.037	.245	4.440	.000	.291	.228	.213

a. Dependent Variable: Theorist

As can be seen in Table 3, Confucian, Uncertainty Avoidance and Collectivism were significantly correlated at the zero-order level with the Reflector learning style. Another standard multiple regression analysis was conducted between the Reflector learning style and the independent variables of Power Distance, Masculinity, Confucian, Collectivism and Uncertainty Avoidance. The multiple *R* (0.333) for the

regression was significantly different from zero, ($F(5,358) = 8.933$, $p<0.001$). In total 11% (10% adjusted) of the variation in the Reflector learning style was accounted by the variables ($R^2 = 0.111$, *adj.* $R^2 = 0.099$). Tables 6 and 7 below indicate that the standardized regression coefficient (Beta) for three variables: Confucian, Uncertainty Avoidance and Collectivism were significant. Confucian explained 1.9%; Uncertainty Avoidance explained 1.88%; and Collectivism explained 1.3%, of the 11% explained variance.

Table 6: Reflector Learning Style Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333[a]	.111	.099	.4698

a. Predictors: (Constant), Uncertainty Avoidance, Power Distance, Collectivism, Confucian, Masculinity

Table 7: Reflector Learning Style OLS Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.053	.200		10.269	.000			
	Power Distance	2.156E-02	.042	.030	.509	.611	.084	.027	.025
	Masculinity	2.770E-02	.033	.049	.828	.408	.081	.044	.041
	Confucian	.105	.038	.158	2.773	.006	.256	.145	.138
	Collectivism	.105	.046	.124	2.307	.022	.213	.121	.115
	Uncertainty Avoidance	.112	.041	.157	2.740	.006	.239	.143	.137

a. Dependent Variable: Reflector

Discussion

High Collectivism beliefs and high Uncertainty Avoidance beliefs along with the demography variable Age seem to be the predictors of Course Satisfaction (see Table 3). This suggests that high Collectivism and high Uncertainty Avoidance beliefs could also form the foundation to whether a student refers the course and university to others and or repurchases another course from the university as alluded to by Aaker (1991), Rowley (1995), Athiyaman (2000), Mavondo et al. (2000) and Harris et al. (2000). An understanding of students' cultural beliefs by universities may also

improve the relationships between students and the university and create loyalty to the university as suggested by Caldow (1998) and Griffin (2002). Thus the greater the level of student loyalty to the university, there is a greater likelihood that they will refer the course and university to others; and or repurchase another course from the university.

It is also not unusual to find the demography variable Age to be a predictor of course satisfaction, as with age comes greater experience, knowledge, pre-determined behaviours and expectations. This is supported by Ballard and Clanchy (1997) who state that all students who enter university have pre-determined knowledge acquisition, learning behaviours, abilities, personalities and previous educational experiences. This also suggests that if universities are aiming for a 'mature age' student population, for example postgraduate studies, that they investigate what that market is after from a quality and content basis as to create loyalty and referral behaviour as discussed by Caldow (1998), Griffin (2002), Aaker (1991), Rowley (1995), Athiyaman (2000), Mavondo et al. (2000) and Harris et al. (2000).

High Masculine beliefs (see Table 5); High Confucian beliefs (see Tables 5 and 7); High Uncertainty Avoidance beliefs (see Tables 5 and 7) and High Collectivism (see Table 7) seem to be the cultural predictors of a Teacher-Driven learning style preference. These empirical findings suggest that students with these cultural beliefs are more likely to have a Teacher-Driven learning style preference. Conceptually it has been argued that students with a Teacher-Driven preference are more likely to prefer a highly structured classroom environment where the teacher organises the learning tasks and time (Brown 2003b; Hancock et al. 2002). These students are also more likely to favour learning new material within a theoretical framework that they can reflect on (Hassall et al. 2001; Lavelle et al. 2003; Webb 1997). They would be more willing to integrate materials (Campbell et al. 2001; Lavelle et al. 2003; Webb 1997). These students may also be more likely to be motivated by the subject material as an end in itself rather than as a means to some other end such as high academic grades or course completion. Students with a Teacher-Driven learning preference may indeed have a more sophisticated preference to learning as previously mentioned by Case and Gunstone (2003) and may be less likely to engage in active experimentation and pragmatic learning. This later style however is the one most

common amongst Australian business students (Barron et al. 2002). There is no clear empirical evidence in the literature that students who hold a Teacher-Driven learning preference receive better grades or have higher course completion rates.

As a series of exploratory cross-sectional studies this research is unable to gauge any changes in business students' Teacher-Driven learning preferences and Course Satisfaction over time. They only focused on one Australian University with campuses located in Australia. Studies that examine students' preferences longitudinally and use multiple campuses are needed. Hopefully this study had identified some variables worthy of further examination.

Its findings suggest that a number of assumptions about international students learning preferences and course satisfaction need to be more carefully examined. The degree to which students hold masculine, Confucian, collectivism and uncertainty avoidance cultural values helps to explain the extent to which they will favour theoretical and reflective learning styles and prefer a Teacher-Driven learning environment; and the degree to which students hold collectivism and uncertainty avoidance cultural beliefs helps to explain differences in course satisfaction. These cultural values are more common amongst international students. This understanding may help educators be more sensitive in their selection of teaching styles when working with this student sub-population as well as helping these students be more satisfied with their course selection.

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