

Cultural factors influencing Eastern and Western engineering students' choice of university

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Insight into factors that affect students' choice of university is useful when designing study programs, especially in the global competition for students. This study focuses on Taiwanese and Norwegian students' preferences for university, study program, course qualities and future career qualities. Hofstede's model was used to predict culture-related differences. A pair-wise decision questionnaire was used to conduct measurements. Cultural differences were observed in relation to choice of university, course qualities and future careers. Discipline of study had only minor impact on students' preferences. The results suggest that a career-relevant curriculum is culture-neutral. Moreover, personal advice is the most preferred factor among Taiwanese students when choosing university.

Keywords: culture differences, motivation, career-choice, student recruitment

1. Introduction

Engineering and technology educators worldwide are witnessing a declining interest in technical related subjects (Jenkins 2006; Ogawa and Shimode; Schriener and Sjøberg 2004). In addition, enrolled students are believed to have weaker skills, especially in mathematics, compared to students a few decades ago (Meriam 1991; Ohland, Yuhasz, and Sill 2004; Taylor and Morgan 1998). One repercussion of these changes is that the need for new qualified engineering graduates in society is not met (Byfield 2001; Hawley and Raath 2002; Joos, Marceau, and Scott 2004). Moreover,

the lack of enrolled students in the engineering departments leads to reduced income, financial uncertainty and instability, redundancies and ultimately the closing of programs. There has consequently been numerous initiatives to reverse this trend including innovative attempts at reviewing the curriculum (Dohn, Pepper, and Sandgren 2005; Mustoe and Croft 1999), making it more up to date and relevant.

It has been pointed out that more knowledge is needed about factors that attract and make students stay in engineering education (Bernold, Spurlin, and Anson 2007). Moreover, such knowledge needs to be viewed in a global perspective as internationalization is gaining increased importance in higher education. Both study exchanges and the recruitment of foreign students are often prioritized areas. This study addresses factors that affect students' decisions when choosing university and future career paths, and how some of these factors are connected to the students' home culture. Two culturally dissimilar student populations are studied, namely Taiwanese and Norwegian students as these are coarsely representative of what is often stereotypically referred to as Eastern and Western students. Taiwan and Norway have very similar GDPs with a rank of 23 and 24, respectively (CIA 2008). Norway and Taiwan also have one of the worlds' highest human development indices of 0.968 and 0.932, respectively (UNDP 2008).

2. Background

2.1 Culture differences

This study is based on Hofstede's framework for assessing cultures (Hofstede 2003; Hofstede and Hofstede 2004). This framework is among the most commonly cited in the literature. Moreover, empirical data are readily available for a range of cultures including Taiwan and Norway (see Table 1). Hofstede's framework evolves around five dimensions of culture. The first of Hofstede's indices, power distance, addresses

how a society accepts unequal distribution of power. In a society with a low power distance people are more equal than in societies with a large power distance. The power distance in Taiwan is larger than in Norway. Teachers in Taiwan are generally more respected and viewed as experts, while teachers in Norway are viewed as facilitators of learning processes. Several studies describe aspects of power distance in the classroom (Chan 1999; Watkins 2000).

Table 1 approximately here

The second index, individuality, addresses whether the individuals of a society act individually or collectively as a group. In an individualistic society individuals focus on themselves. The Norwegian society is individualistic, while Taiwanese society is collectivist. In Taiwan a decision to go to university is often a decision carefully made with the objective to help the whole family, while in Norway students usually chose their study path based on their individual interests and talents.

The third index addresses masculinity versus femininity. A masculine society is competitive while a feminine society places emphasis on relationships and quality of life. Table 1 shows that Taiwanese society is moderately masculine while Norwegian society is highly feminine. The Taiwanese education system is very competitive. Students must sit university entrance exams, the results of which form the basis of a national ranking of students. Only the top students will be admitted to the more prestigious universities. In Norway, competition is limited to subjects with few study places and high demand such as medicine.

The fourth index, uncertainty avoidance, summarizes how members of a society manages uncertainty, i.e., whether uncertainty is avoided through rules and religion, or whether uncertainty is accepted. Taiwan is more uncertainty avoiding than

Norway. A Taiwanese semester is often well structured with weekly compulsory assignments designed to ensure students' progress, while a Norwegian semester is more flexible with few large projects leaving more of the responsibility for progress onto the students. Taiwanese students are less likely to ask questions during lectures compared to Norwegian students (Sandnes, Huang, and Jian 2006).

Hofstede's fifth index, long term orientation, deals with societies that are oriented towards future rewards, for instance thrift and perseverance, while short term orientation is oriented towards the past and the present. In Taiwan the purpose of study is to ensure a good career. Although this is also an important argument in Norway, more students will study a topic they are interested in regardless of future job prospects.

2.2 Research questions

This study set out to uncover how students with different cultural backgrounds make decisions when choosing university. We were interested in students' preferences for university qualities, preferences for program qualities, course qualities and their preferences with regards to their future careers.

Factors that may affect choice of university include university reputation, course relevance, cost of study, advice and advertisements. It was predicted that the Taiwanese students would indicate a preference for reputation and advice, as reputation is long term oriented and the act of following advice is collectivist. Moreover, to compete to go to a university with a strong reputation is also a masculine characteristic. Similarly, it was expected that Norwegian students would indicate a preference for relevance, as it is linked to individualism and feminism. It was also expected that the Norwegian students would express a stronger preference for advertisements than the Taiwanese students since they make independent

decisions, while the Taiwanese are more likely to make decisions based on collective advice. The issues of cost and location were predicted culturally neutral.

Next, key values of a curriculum were identified as learning techniques, learning facts, gaining work related experience, learning theory, learning history and learning futuristic and cutting edge knowledge. In general, vocational aspects of the curriculum are believed to be more motivating than pure academic aspects (Voss, Gruber, and Szmigin 2007). We predicted that learning of facts and theory and relevance to future career would be preferred by the Taiwanese students. Facts and theory are useful tools for uncertainty avoidance. Usefulness to future career is a long term oriented value as it signals future rewards. Creating and designing artifacts were predicted as being preferred by the Norwegian students as these are attributes of individuality. Moreover, it was predicted that Norwegian students would show stronger preferences for history as this is a short term oriented value addressing the past. The learning of techniques and future and cutting-edge topics were predicted to be culture neutral.

Key characteristics of a course were identified as timeliness, direct usefulness to career, whether engineering is interesting and fun, wide applicability, long durability and the ability to use personal talent. According to Hofstede's model we predicted that the Norwegian students would show a stronger preference for timeliness, interesting and fun and ability to use personal talent. Timeliness is short term oriented as timely topics may quickly become outdated. Interest and fun are individualistic qualities that are relevant to the self. Moreover the exploration of personal talent is indeed an individualistic and to some extent a feminine endeavor. Next, it was predicted that Taiwanese students would express preferences for a course to be directly useful to future career, course content that has wide applicability and

has a long durability. Usefulness to future career is long term oriented as there is potential for future rewards. Wide applicability and long durability can both be attributed to uncertainty avoidance and long term orientation.

Finally, key career values were identified as meaningfulness and ability to help people, excitement, fun and interest, security and predictability, flexibility and freedom, ability to travel, ability to earn money, being creative and gaining fame and status. Of these, meaningfulness, excitement and fun, flexibility and freedom and ability to be creative were expected to be preferred by Norwegians. Meaningful work that allows one to help others can be characterized as feminine {Eccles, 1987 #122}. Excitement and fun and the ability to be creative are individualistic values, flexibility and freedom are also feminine and individualistic values. Next, security and predictability, earning money and fame and status were all predicted to be preferred by the Taiwanese students. Security and predictability can be linked to uncertainty avoidance. Ability to earn money and fame and status are long term orientated values. Ability to travel was viewed as a culturally neutral. All the predicted preferences are summarized in Table 2.

Table 2 approximately here

3. Method

3.1 Material

A questionnaire based on pair-wise comparisons for the ranking of issues was developed for this study. Unlike Likert-based questionnaires, where an issue is measured through a handful of questions with multiple subjective alternatives, a pair-wise instrument will employ more questions for each issue, but each question only offers two distinct alternatives. Consequently, reliable measurements can be obtained

with fewer respondents compared to Likert-style questionnaires (Seip, Cobelas, Doledec, Fang, Smith, and Vorontsova 2006).

The first part of the questionnaire addressed demographic information including sex, age, level of study and discipline of study. The second part of the questionnaire addressed the reasons for choosing the particular university for study. The third part of the questionnaire asked students to rank issues they find important when taking a course. Next, students' perception of what constitutes a good lecture was addressed. Finally, students' views on what they look for in a future workplace were probed. All parts of the questionnaire, except the first part, employed pair-wise comparisons.

For each set of issues all pair combinations were listed with each pair on a separate line where the respondent had to choose between one of the two choices, or tick both if the respondent viewed these as equally important. The pairs were shuffled into random order and the item pairs were organized such that they appeared approximately the same number of times on the left and the right side. Figure 1 illustrates a portion of the pair-wise questionnaire.

Figure 1 approximately here

3.2 Respondents

A total of 221 university students from National Cheng Kung University (Taiwan), National Taipei University of Technology (Taiwan) and Oslo University College (Norway) responded to the questionnaire. Some students may have an immigrant background. However, it is assumed that the two groups (Taiwanese/Norwegian) are relatively homogenous, as both countries have local language proficiency

requirements. Admission records confirmed that there were no Taiwanese students in the Norwegian group and vice versa. A demographic summary of the respondents are listed in Table 3.

Table 3 approximately here

3.3 Procedure

The questionnaires were distributed in class to ensure a high return rate. On average the students completed the questionnaire in 20 minutes. All the students returned the questionnaire (100%), of which 85.1% were used as incomplete questionnaires were discarded.

3.4 Analysis

The responses were analyzed using a set of custom made spreadsheet tools. The ranking lists were computed based on the normalized ranking scores according to the procedure outlined in (Seip et al. 2006). Moreover, the agreement for each rank was computed together with a Chi-square significance test for each rank. Furthermore, a normalized Kendall Tau rank distance measure was used to compute the difference between rankings in order to make quantitative comparisons (Fagin, Kumar, and Sivakumar 2003).

4. Results and discussion

4.1 Choice of university

4.1.1 Results

Table 4 lists preferences when choosing university, namely university reputation (w_1), course relevance (w_2), low cost to study (w_3), location (w_4), advice (w_5) and advertisement (w_6). The results show that the Norwegian students preferred relevance of courses the most ($w_2 = 0.27$, rank = 1/6), while the Taiwanese ranking put

relevance of courses in third and fourth place respectively ($w_2 = 0.18-0.19$, rank = 3-4/6). The Taiwanese non-technology students preferred institutional reputation the most ($w_1 = 0.23$, rank = 1/6), while the Taiwanese engineering students preferred advice the most ($w_5 = 0.24$, rank = 1/6). The location of the university was the overall second most important attribute ($w_4 = 0.17-0.23$, rank = 2/6) apart from the Taiwanese non-technology ranking where advice appeared in second place ($w_5 = 0.20$, rank = 2/6). Advice ranked comparatively low among Norwegian students ($w_5 = 0.10-0.15$, rank = 4-5/6). Overall, advertisement was least important ($w_6 = 0.4-0.6$, rank = 6/6). All the ranking agreements are statistically significant, namely Taiwan/engineer ($\chi^2(15, N=75) = 305.0$; $p < .001$), Taiwan/non-technology ($\chi^2(15, N=48) = 167.9$; $p < .001$), Norway/engineer ($\chi^2(15, N=41) = 204.2$; $p < .001$) and Norway/non-technology ($\chi^2(15, N=24) = 119.8$; $p < .001$).

 Table 4 approximately here

4.1.2 Discussion

The results confirm the prediction that advice and relevance are culturally dependent factors when choosing university, and that Taiwanese students prefer to base their decision on advice, and that Norwegian students prefer to base their decision on relevance.

The results refute the predictions that advertisement and reputation are culturally dependent. All groups placed medium importance on reputation apart from the Taiwanese non-technology students who ranked this the most important. This suggests that reputation may be more connected to discipline of study than culture. The low ranking of advertisement suggests that this is universally unimportant.

The results support the predictions that cost and location are not linked to cultural affiliation. Cost is more likely to be linked to the economic ability of the individual. The universal low ranking of cost suggests that money is not a key factor when choosing university. However, it is interesting to observe the universal importance that was placed on the location of a university. Trends observed in both Taiwan and Norway is that universities located in the cities are more popular than universities located in rural areas. Services may be more conveniently accessible in urban environments and urban environments may provide more opportunities for extracurricular activities than a rural area. Note that the three universities included in this study are located in large cities, i.e., more than half a million people or more, and it is therefore possible that the respondents are biased towards a preference for urban life.

4.2 Attributes of the curriculum

4.2.1 Results

Table 5 lists students' preferences related to the curriculum and issues included learning skills and techniques (w_1), learning facts (w_2), work related experience (w_3), learning theory (w_4), learning about the history (w_5), creating and designing artifacts (w_6) and learning futuristic and cutting-edge contents (w_7). The Kendall Tau distances show that the responses across the groups were similar. Taiwanese engineering students and the Norwegian non-technology students both preferred work related experience ($w_3 = 0.20-0.23$, rank = 1/7), while the Taiwanese non-technology students and Norwegian engineering students preferred futuristic and cutting edge contents ($w_7 = 0.21-0.22$, rank = 1/7). Overall, learning techniques was of medium to high importance ($w_1 = 0.16-0.19$, rank = 2-3/7). Creating and designing things were ranked in fourth place ($w_6 = 0.14-0.16$, rank = 4/7). Learning of facts was ranked fifth ($w_2 =$

0.11-0.12, rank = 5/7). History was universally the least important part of the curriculum ($w_5 = 0.06-0.08$, rank = 7/7) with exception of the Taiwanese non-technology ranking where history was the second least important part of the curriculum ($w_5 = 0.8$, rank = 6/7) and theory was the least important part ($w_4 = 0.6$, rank = 7/7), while theory was the second least important part of the curriculum for the other groups ($w_4 = 0.09-0.10$, rank = 6/7). All the ranking agreements are statistically significant, namely Taiwan/engineer ($\chi^2(21, N=75) = 253.8$; $p < .001$), Taiwan/non-technology ($\chi^2(21, N=48) = 271.8$; $p < .001$), Norway/engineer ($\chi^2(21, N=41) = 234.2$; $p < .001$) and Norway/non-technology ($\chi^2(21, N=24) = 125.4$; $p < .001$).

Table 5 approximately here

4.2.2 Discussion

The results did not support the predicted culture differences. All groups indicated universal preferences. The students preferred work related experiences and timely subjects over theory, history and facts. Students, irrespective of culture, are pragmatic and have a more positive attitude to aspects for which they can see the immediate benefit. Although unpopular, it is the role of the educational institution to ensure that the students have a certain level of perspective and theoretical foundation in order to adjust to future changes in the field, as especially engineering subjects are ridden with frequent paradigm shifts. The Internet makes us less dependent on remembering absolute fact as long as we know for what and where to look.

Overall, the results, which appear to be universally consistent, support recent efforts reported in the literature (Burns 2004; Dohn, Pepper, and Sandgren 2005; Fernando, Murali, and Bhushan 2006) which advocates renewing the curriculum, making it relevant to future careers.

4.3 Courses

4.3.1 Results

Table 6 lists the ranking of course attributes, including subject timeliness (w_1), usefulness to future career (w_2), ability to generate an interest in the subject (w_3), wide applicability (w_4), long durability (w_5) and opportunity to use personal talent (w_6). Usefulness to future career was the most important aspect of a course ($w_2 = 0.21-0.26$, rank = 1/6), except for the Taiwanese non-technology ranking where usefulness was the second most important issue ($w_2 = 0.22$, rank = 2/6). The Taiwanese non-technology students, however, preferred wide applicability ($w_4 = 0.24$, rank = 1/6) which was the second most important issue in the Taiwanese engineering students and the Norwegian non-technology students ranking ($w_4 = 0.20-0.23$, rank = 2/6) and only the fourth most important issue in the Norwegian engineering students ranking ($w_4 = 0.16$, rank = 4/6). Next, timeliness of the subject was the least important factor in the Taiwanese ranking ($w_1 = 0.05-0.10$, rank = 6/6), while timeliness of the subject was of medium importance in the Norwegian ranking ($w_1 = 0.15-0.18$, rank = 3/6). Similarly, long durability was the least important course attribute in the Norwegian ranking ($w_5 = 0.10$, rank = 6/6), while durability was of medium-low importance in the Taiwanese ranking ($w_5 = 0.16-0.19$, rank = 4-5/6). Differences were observed related to discipline regarding preferences for interesting and fun course contents. Interesting and fun contents were of high-medium importance among the engineering students ($w_3 = 0.16-0.18$, rank = 2-3/6), while interesting and fun content were of low importance to the non-technology students ($w_3 = 0.14$, rank = 5/6). The use of personal talents was viewed as being of medium low importance among all the groups ($w_6 = 0.12-0.16$, rank = 4-5/6). All the ranking agreements are statistically significant, namely Taiwan/engineer ($\chi^2(15, N=75) = 92.6$; $p < .001$), Taiwan/non-technology

$(\chi^2(15, N=48) = 167.6; p<.001)$, Norway/engineer $(\chi^2(15, N=41) = 110.5; p<.001)$ and Norway/non-technology $(\chi^2(15, N=24) = 68.4; p<.001)$.

Table 6 approximately here

4.3.2 Discussion

The results support the predictions that long durability of the knowledge is preferred more by the Taiwanese students than the Norwegian students, although it is generally ranked low. The relatively low ranking of long durability reflects short term thinking.

Similarly, the predicted cultural differences related to timeliness of a subject were supported by the results as Norwegian students expressed a stronger preference for the timeliness of a subject than the Taiwanese students, although timeliness generally ranked low. The low ranking of timeliness may be rooted in students' expectations to receive fundamental training at university and then specialized cutting edge training with their first employer.

The predicted cultural differences related usefulness to future career and wide applicability of the subject were not supported. Instead, these were universally ranked as being important, although small variations were observed across the disciplines.

The predictions that Norwegian students due to their individualistic cultural background would express a preference for interesting and fun course content were not supported. Instead, a difference could be related to discipline. Engineering subjects attract students that have a keen and playful interest and curiosity on the subject. Note that the Norwegian engineering students expressed a stronger preference for interesting and fun topics than the Taiwanese engineering students which may suggest a small cultural effect due to individualism. The linkage between interest and

choice of technology subjects is consistent with the literature (Ogawa and Shimode; Schriener and Sjøberg 2004).

Finally, the predicted preference among Norwegians students' preference to pursuit their individual talents was not supported as the ability to use own talents universally ranked low.

4.4 Career goals

4.4.1 Results

Table 7 lists the ranking of attractive characteristics of a future job. Characteristics include meaningfulness (w_1), fun (w_2), predictability (w_3), flexibility and freedom (w_4), ability to travel (w_5), earn money (w_6), be creative (w_7) and fame and status (w_8).

The Taiwanese students expressed a stronger preference for freedom and flexibility higher ($w_4 = 0.14-0.15$, rank = 1/8) than the Norwegian students ($w_4 = 0.12-0.14$, rank = 5-6/8). Creativity was of high-medium importance in the Norwegian ranking ($w_7 = 0.13-0.15$, rank = 2-3/8), while creativity was the third least important characteristic in the Taiwanese ranking ($w_7 = 0.13$, rank = 6/8). Taiwanese students preferred the ability to travel more ($w_5 = 0.13$, rank = 4/8) than the Norwegian students ($w_5 = 0.10$, rank = 6-7/8). The non-technology students preferred predictability ($w_3 = 0.13$, rank = 3/8) compared to the other groups ($w_3 = 0.12-0.14$, rank = 4-5/8). Taiwanese non-technology students were less concerned with earning money ($w_6 = 0.13$, rank = 5/8) compared to the Taiwanese engineering students ($w_6 = 0.14$, rank = 2/8). Overall, security and predictability was of medium importance ($w_3 = 0.12-0.14$, rank = 3-5/8). Next, the desire to have a meaningful job involving helping people was the second least important characteristic ($w_1 = 0.10-0.12$, rank = 7/8), apart from in the Norwegian non-technology ranking where helping people was of medium importance ($w_1 = 0.12$, rank = 4/8). Finally, fame and status were

universally the least important issues ($w_8 = 0.06-0.08$, rank = 8/8). All the ranking agreements are statistically significant, namely Taiwan/engineer ($\chi^2(28, N=75) = 125.7$; $p < .001$), Taiwan/non-technology ($\chi^2(28, N=48) = 155.0$; $p < .001$), Norway/engineer ($\chi^2(28, N=41) = 158.3$; $p < .001$) and Norway/non-technology ($\chi^2(28, N=24) = 72.5$; $p < .001$).

Table 7 approximately here

4.4.2 Discussion

The results support the predictions that Norwegian students would show a stronger preference for a future workplace to be interesting and fun and allowing them to be creative, than Taiwanese students. However, the results did not support the predictions that Norwegians would prefer freedom and flexibility. In fact the results suggest the opposite, namely that Taiwanese students prefer freedom and flexibility.

Moreover, the predicted Norwegian preference for meaningful work that would allow them to help people was not supported. Instead a small difference related to discipline was observed. The fact that the Norwegian non-technology students expressed a stronger preference for meaningfulness than engineering students is consistent with recent research which contrasts the different goals of the traditional “nerd” and the ideologist (Schriener and Sjøberg 2004). However, it is a case for concern that a majority of the students, especially the engineers ranked meaningfulness low.

Next, the predicted Taiwanese preferences for fame and status, ability to earn money and predictability were not supported. Of these fame and status were universally the least important. Preference for predictability could be linked to discipline. Perhaps non-technological students’ preference for predictability can be

explained by a perception of the engineering job market as being more predictable than the job market for non-technology students.

Despite the predictions, a cultural difference was observed regarding preference for future work involving travelling as Taiwanese students expressed a stronger preference for travelling than Norwegian students. Some years ago one would explain this from an economic perspective. However, this is unlikely to be a factor giving the similar economic climates and living standards in the two countries. Instead, this difference may be politically rooted. Norway is connected to mainland Europe with loose travel restrictions, while Taiwan is an island which were its residents are subject to stricter travel restrictions due to the political situation.

5. General discussion and implications

The results strongly echo the importance of practical relevance. Students prefer universities that provide relevant education. They select study programs and courses that are pertinent to their career and prepare them for future work. Theoretic topics are less preferred. To attract students from both cultures universities need a continuous focus on updating their course portfolio to match the needs of industry. The curriculum should focus on skills rather than rote memorization of facts. Still, the results suggest that wide applicability of a topic is more important than it being timely or have a long sell-by date. Students may expect to have a skill set they can apply in a wide array of settings and once employed receive the specialized training needed. This is also consistent with the ideas of life-long learning.

The location of a university is universally important, but most universities have few means of easily changing their location. However, when planning new campuses or relocation students' location preferences should not be overlooked.

Advertisements are inefficient. Moreover, it is difficult to advertise cost-effectively internationally.

Educators need to be aware of certain culture differences. Taiwanese students aspire to jobs which will provide flexibility and freedom and the ability to travel while Norwegians aspire to jobs which are interesting and fun. Taiwanese students are very much influenced by advice when choosing university. Western universities recruiting Eastern students must not overlook the importance of alumni, and their contact with partner universities and the potential for recruitment than can be done from the inside through a network of friends.

Few students who participated in this study are motivated by the desire to help people and do meaningful work. One explanation for moderate interest in helping others may be a result of the male dominated sample as helping others is a feminine characteristic. Whether helping others or doing meaningful work, it is the educational institutions' responsibility to cultivate the students' ethical values.

5.1 Limitations of this study

The results presented herein represent a snapshot of the situation under the current economic and political climate. A longitudinal study is needed to determine if the current economic and political situation affect students' study and career choices. Moreover, the current study omits the issue of gender. It would be interesting to repeat the experiment with gender balanced populations.

6. Summary

Taiwanese and Norwegian students' preferences for university were measured. Norwegian students chose university according to the relevance of courses while Taiwanese students chose university based on advice and institutional reputation. A universal trend is that the location of the university is important and advertising

unimportant. Norwegian students preferred timely course content over its durability, while the Taiwanese students preferred durable content over timely content. All groups preferred work related experience and cutting edge course content, while theory was ranked low. Moreover, the Norwegian students indicated a preference for creativity in a future workplace while the Taiwanese students preferred freedom and the ability to travel. All groups indicated that fame, status and job meaningfulness are unimportant.

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Figure and Table Captions

Figure 1. An example of pair-wise ranking of six issues from the questionnaire designed for this study.

Table 1. Hofstede's cultural indices for Taiwan and Norway. Power distance index: 100 = a large power distance, 0 = no power distance. Individuality index: 100 = individualism, 0 = collectivism. Masculinity index: 100 = masculine, 0 = feminine. Uncertainty avoidance index: 100 = uncertainty avoiding, 0 = uncertainty accepting. Long term oriented index: 100 = long term oriented, 0 = short term oriented.

Table 2. Hypothesized culturally dependent preferences for the study environment.

Table 3. Respondent demographics

Table 4. Students' preferences for choice of university

Table 5. Students- preferences for curriculum focus

Table 6. Characteristics of a good course

Table 7. Students' ranking of attractive features of future workplace