THE NECESSITY AND IMPORTANCE OF CONSIDERING CULTURAL BACKGROUND OF INTERNATIONAL STUDENTS IN DESIGN EDUCATION

S. R. Mortezaei, T. Katz and R. Morris

ABSTRACT

The necessity of considering the cultural values of different users in diverse international markets has been a challenge for global companies for many years. The consideration of these differences may produce a globally acceptable product, or alternatively may produce variations aimed at differing cultural markets. Refrigerators designed for the American market for example must include ice dispensers, whilst these can simply be a differentiating design feature in other markets. Cultural considerations are not however tied just to the issues of features, marketing, management and communication. They are additionally and intrinsically tied to the cultural background of the designer.

Increasing the profile of culture-orientated education in design could raise the motivation and insight of design students and later design practitioners. This is particularly applicable to international students in higher education. These students have different cultural backgrounds and show different responses to design projects. The fundamental issue is not about the final output (which would always be divergent), but about the influence of culture on their learning process and the way they are evaluated.

This study is about the latent aspect of culture within the design students, its importance, necessity and influence on learning and practising design.

Key words: Design education, cultural design, culture-orientated education

1   INTRODUCTION

Design education "in this form is a relatively recent phenomenon" [1], but one which has become the subject of much research and discussion. The role of culture is an aspect that should not be overlooked in this search for a better quality of design education.

'Culture' itself can be said simply to show the way and style of life of a social group and include all the according social arrangements and knowledge transmitted from one generation to the next. Culture can therefore be applied to many aspects of life, including work and entertainment. It is often stated as coming from one of two sources:

- Latent, or what may be called, culture-in-person [more engaged with subjective existence of culture (Kidd 2002)] and includes all of a person's cultural background through experiences, working, living and interaction;
- Explicit, or, person-in-culture, which could include some intended methods for providing cultural context.

Whitney (2003) mentions research methods that provide some cultural insight. They are culture, product or activity-based research. Although Whitney focuses on the users' needs in the product development cycle, the methods could be developed in other fields. This explicit approach in design research and education however lies outside the scope of this study which is directed at the former latent approach.

All taught modules within the University of Brighton's Product Design course could to some extent be categorised by the level of cultural input they provide. For example:

- **Deliberate and Explicit**

  The following modules aim either in full or in some part to infuse cultural knowledge within students, through for example exploring questions of consumer patterns, social surroundings or the human user interface; Design Studies (I, II, III), Innovation, Historical and Critical Studies L1 & L2, Historical and Critical Studies Project. This is a deliberately planned element of the course and is explicitly evident in the type of work that students do. For example; in Design Studies students undertake a talisman project which underlines awareness of symbolism. In innovation, students study culture as a tool for finding solutions.

- **Deliberate but discreet**

  Other modules may cover cultural issues but in a less explicit manner; Materials, Engineering Management, Professional Development, Engineering Design, Design Communications, Computer Mediated Design, Design Business Technology, Production and Operations Management. For example, Materials will supply students with a range of knowledge relating to material types. Cultural issues of sustainability may form an issue within the delivery of this knowledge.

- **Tacit**

  Some modules provide limited taught input of any kind, but there are 2 types of tacit cultural inference. The first is in expecting student to draw on their cultural experiences and tuition and to display these. The second is that our expectation of them to integrate subjects and proceed in a planned process is in itself a cultural acceptance of these methodologies. They are, Design Projects L1, L2 & L3 and Professional Experience.

- **Less relevant**

  The following modules may have some cultural elements to them; Engineering Workshop**,** Manufacture**,** Predictive Modelling**,** Mechatronics and Rapid Prototyping. We expect goods to be provided quickly, so rapid prototyping may be considered as a cultural element. However, to avoid the solipsistic claim that everything is cultural, we would argue that the actual body of knowledge delivered is less cultural.

The cultural provision in the course is determined by the course structure, the knowledge, experiences and interest of the subject leaders, and by the definitions of culture.

2   METHODOLOGY

Through a short study at the department of Product Design, some dimensions of latent cultural experiences of students were examined. The study was engaged mostly with 'what' questions (which can be seen further) and therefore required a 'descriptive' research. Descriptive research attempts to describe a situation, problem or phenomenon and provides a well knowledge base and insights, appropriate for more detail studies.

As the essence of the study which seeks the existing situation of cultural background of students was assessed descriptively, so descriptive research techniques were used. The

most common in this field was the survey. The authors did a mini-survey and managed a series of semi interviews.

In practice, the interview questions were arranged in two categories; generic and specific. The first, generic category addressed some general terms in cultural differences, changes, home culture, cultural problems and misconceptions from the educational point of view. The second category was designed to ask about a particular type of design project and evaluate the initial thoughts about it in a culturally sensible domain. The actual project, an 'Urban Survival Tool' (UST), was established for level 1 students by the Project Module Leader.

Furthermore, two approaches were used to cover most aspects of the survey; 'etic' and 'emic' approaches. "These terms are often referred to in the professional literature and are drawn from anthropology "[2]. The former, consider the perspective of interviewer(s) in the survey and the latter provides a chance for interviewee(s) to take part more effectively in managing the interview, known as 'their perspective' approach.

In this case, the part one (general questions) were followed in an etic approach and in the part two (specific questions) the interview was run in some ways by students. Based on their responses some new questions were revealed that were not predicted. The emic approach can be treated as a way to uncover some previously ignored part of a survey.

3 groups were used in the study as a form of triangulation strategy. The groups were composed of 5 members each of international students, native British students, and academics. Native students were included to provide a better base for comparison. Foreign students were from Germany (German-Indian), Norway, Egypt, Nigeria and Japan. All interviewees were male except three British, Norwegian and Nigerian women. The results were discussed with the academics through an unstructured interview.

3   SURVEY

3.1   Generic category (questions)

The authors intended to establish a general view of the cultural background of interviewees, and its influence on the quality of learning design, through a series of questions. The questions addressed topics in cultural differences and any possible misunderstanding, such as:

- What are you feeling about your studies now as opposed to when you started the course? Can you explain the differences or changes?
- With these differences in mind, would you say they relate to cultural issues?
- Do you feel any distinct differences between your home culture and British culture? Explain please.
- Are these differences related only to university issues or others to do with everyday life?
- From a cultural point of view, would you feel more comfortable if studying design in your own country?
- What problems, if any, have you experienced in learning just from a cultural perspective?
- Have you found any misconception or misunderstanding between the lecturer and yourself? If yes, was it related to cultural issues?

3.2 Specific category ("Urban Survival Tool" questions)

The students were asked to think about "An urban survival - inventing, designing and prototyping a tool for 21st century urban context. The tool should be desirable, saleable, possible and useful." The following example questions tried to underline the cultural background, influences, prior knowledge and perceptions in undertaking the project:

- Can you think if your own cultural background has influenced your design?
- What was your first thought about this project? To you what does it mean; Urban Survival Tool?
- Can you find any place for this theme in your culture? Do you think that this project can meet your cultural needs? Can you relate something between this project and something in your culture?
- Apart from what the lecturer said about the project, did you have any prior knowledge about it? If yes, what was it?

4   RESULT

The results produced a wide variety of responses, which are captured and summarised below:

- All students alluded to happiness, excitement and a slight uncertainty when they started the course. Undertaking new careers in design, learning how to think, manage and create things were some reasons given. Both native and international groups had similar responses to the question of their feeling now as opposed to when they started. They felt changes but mostly agreed that they could not necessarily stem from cultural resources. European students' responses seem more similar compared to the others. An Egyptian student put more emphasis on cultural points by referring to the Arabs view of industrial goods. He remarked on a preconception that admired the products of western countries. He believed that they (Arabs) did things in a rush and didn't pay enough attention to aesthetics and ergonomics. He considered it as a cultural point.
- International students all affirmed the cultural differences between Britain and their countries. Open-mindedness, environmental consciousness, perfect manufacturing, technology-orientated society, traditional materials, crafts, organized thinking and enjoyment of culture were some examples where attitudes differed. The controversial subject of globalisation and its influence on the culture of a new generation was an issue. Also they found these in all levels of studying, living and working in the UK, not restricted only to the university. British students had references to some subcultures in different part of Britain, too.
- Not all international students believed that they would prefer to study in their own countries (only from the cultural point of view). Britain to some is a more cosmopolitan and multicultural society where they would like to be educated. Craft culture in India was a reason for preferring learning design in the British culture from an Indian-German student. For the Norwegian student, Norway was the preferable choice.
- Answers to the general questions, engaged with misconception in learning, had a diverse range. Some agreed that they had no problem in learning and that their prior culture and knowledge didn't contradict that of lecturer(s). They referred to much commonality between European countries which could cause such a conclusion. Another student didn't accept it and pointed to the differences in values, which are grounded in cultural issues. In this way, although some misunderstandings were identified, they did not necessarily have a cultural origin.

For instance, many agreed with the importance of fluency in English language in the learning process and avoiding possible misconceptions. Some cases of this were found, where a similar concept in each language had different meanings. Although it was not as important as cultural elements to be asked specifically (in a survey with design education orientation), but still remained as a concern for some international students (mostly at level one).

- The part of the survey which related to the Urban Survival Tool project, referred to the initial impressions of the students. Some considered a place for their cultural background to influence their design, but to a restricted extent. Initial impressions of the students about the Urban Survival Tool varied from a quite new brand concept to a more usual product with some different features. From an environmentally aware country, one interpretation is something which lets the urban people know how to survive in nature. It could also be supported by the latest technology in communication (said to be a trend in Norway), something like a smart card. A Navigator or GPS support tool from German and Japanese students were thought appropriate. The Egyptian student referred to a type of weapon whilst many to a pack containing some vital items.
- All students could give some references as to how their concepts linked with something in their culture. For instance, the Egyptian student tried to connect the idea of weaponry to some artefact from ancient Egypt. All benefited from all their prior knowledge in many aspects and felt no problem with it. The only mismatch came from the Norwegian student who was advised by the British lecturer to avoid very high-tech devices which require other specialist disciplines rather than design.
- British students as well as international students had many diverse ideas. One idea which "gets people rid of routine", had, however, mostly a British origin.
- Academics implied to cultural differences among students, but not necessarily consider them significant. Difference in choosing projects, communicating with other classmates, organising themselves or order could be distinguished. "Students' attempt to reflect new technology, application and methods in heir works tends to stand out over the cultural differences", believed a lecturer. There are some differences mostly in first year but less so in later years. They may be tackled in inner layer of learning, working and solving problems.
- Some academics consider that International students are more likely to seek clarification because of uncertainty over language whereas British students will interpret in the way they see fit. If anything, British students are more likely to misinterpret or misunderstand!

5   DISCUSSION

In relation to issues of culture in design education, some key issues from the results can be distinguished.

Firstly, a learner's prior knowledge is crucial. Prior knowledge is a matter of metacognition which has importance in education sciences. The students widely used it (metacognition) when considering the complete design process. Also they were all aware of prior knowledge as an initial source of intuition. Lawson (1997) in his book, 'How Designers Think', gave a reference to an unconsciousness approach of some architectural students in designing and buliting an igloo, which put an emphasis on the importance of preconceptions. Newstetter and McCracken's (2001), through a study entitled, 'Novice conceptions of design: Implications for the design of learning environment', also state: "Our hunch is that students of design have well-developed

prior conceptions and theories about the nature of design that conflict with the understanding held by expert designers." [3].

It still remains unclear how to explain such preassumptions: "A West African student at the School of Engineering (University of Brighton) interpreted a 'car security' brief as 'hide the car', (valid in a country where armed highjack of vehicles happens from your home)."

In a culturally different environment however, prior knowledge (usually integrated with one's own cultural background), applied implicitly by the students (particularly, international ones) might cause misconceptions . But in the survey, no particular misunderstanding or misconception were identified. All students had different concepts about the UST sample project, which means that culture can't necessarily be regarded as the main reason for variations.

More questions arise in this way regarding the type of survey used, method and sample project. Have they been broad enough to give an accurate picture of the culture in the said project? Furthermore, the cultural awareness of a student is undefined and there is no measure for it. Are they aware enough of their culture? Is it part of a global culture which is mostly affected by the global sweep of American culture? In this study, only one case was found. More research is needed to evaluate the extent of possible conflict between students and their design expert/lecturer.

The second issue concerns the assigned design project which itself may come from a social arrangement with a place in a culture. For non-native students it may make less sense. An Egyptian student thinks of weaponry, the Norwegian of smart card and equipment for surviving in the nature, the German-Indian imagines a totally new concept with no similarities to anything else, whilst the British student looks to something that gets rid of routine. The concepts may come form their cultural origins. Is this what the lecturer expected as: "…inventing, designing and prototyping a tool for 21st century urban context. The tool should be desirable, saleable, possible and useful"?

Verwijnen (2000) believes that objects imply a meaningful status to a material culture which are implicit in our social interaction. He adds: "These man-made things are appropriated into our culture in such a way that they represent the social relations of culture and carry values, ideas and emotions." [4]. Many product based projects which are discussed in class could be value laden. In this way, they (projects) could be part of an explicit or implicit culture. Moreover, Verwijnen points to an intentionality behind every design thought which deals with previous objects. One could easily say that the Urban Survival Tool can have a place (as we expect) in Scandinavian culture; something between smart card (as new technological communication is becoming an icon for them) and outdoor survival equipment (as they care about nature). But can we be so sure about Bangladeshi, Ghanian or Guatemala students? How conscious is the lecturer about these students' cultures while defining projects?

The third issue relates to the evaluation process, which is based on a value system. Values are so integrated with culture and play a great role in one's judgements. When it is combined with different cultural preconceptions (learner and educator's value preferences) it might be the cause of confusion. De Souza and Dejean (1999), through the concept of interculturality refer to the problems caused when the transposition of value messages occur. Similar situations in the education field can be produced while evaluating a design assignment. Assessment was not a particular subject in this survey, as this is part of other ongoing work, but within the scope of the project and students responses, it seems that they had enough insight about it and it made sense to them. Uncertainties remain when two distant cultures are evaluated in a similar way.

6   CONCLUSION

This study aimed at providing an insight into the latent aspects of design students with particular reference to the international students. Generally, the culture and specifically the subjective existence of culture were discussed through a survey and fieldwork.

The result revealed the necessity for more investigation in the area which might be underpinned by a broader sample and more precise methodology. Youth culture instead of geographical culture could be a more valid approach to inform strategy in culture-orientated educational research. Design, as a way of creative thinking and solving problem to them provides its own preconception, which could also be a matter of more research in future.

Design education in multinational institutions can pay more attention to potential diverse cultures, existing in international students. It might be directed toward running some cultural projects by lecturers and intervention of the students' cultural background; put emphasis on the global aspect of design and local demand of projects. In the meantime, much research in design education is needed to present a framework for such multicultural design practices.

The cultural provision in the course is determined by the course structure, the knowledge, experiences and interest of the subject leaders, and by the definitions of culture.

Latent cultural influence has appeared in many places throughout our courses at the University of Brighton as we have a very cosmopolitan cohort in the School of Engineering. We should aim to make more use of this through making the cultural issues more transparent to students. These interviews have shown how the discussion has made the latent influences explicit, changing the subjects as we study them. We should again aim to make the tacit more transparent, potentially through problemising the issues.

REFERENCES

[1]   Lawson, B., *How designer think*, 3rd ed., Architectural press, Oxford,   1997, p 4.

[2]   Kane, E. and O'Reilly-de Brún, M., *Doing your own research*, Marion Boyars Publisher, London, 2001, p 35-36.

[3]   Newstetter W. and McCracken M., Novice conceptions of deign: Implications for the design of learning environment. In: Eastman C., McCracken M.,   and Newstetter W. (eds.), *Design knowing and learning; Cognition in design education*. Elsevier Science Ltd, Oxford, 2001, p 63.

[4]   Verwijnen, J., Design and existential meaning. In: Proceedings of the 2nd conference on Doctoral Education in Design: Foundation For The Future, La Clusaz, France, 2000, Staffordshire University Press, p 37.

[5]   Kidd, W., *Culture and identity*, Palgrave, Hampshire, 2002.

[6]   Whitney, P., *Global companies in local markets*, 2003. Available at <http://www.id.iit.edu/papers/whitney_gclm.pdf>

[7] De Souza, M. and Dejean, P., Interculturality and design: Is culture a block or an encouragement to innovation. In: Proceedings of the international conference of design research: Design Cultures, Sheffield, England, 1999. Available at <http://www.shu.ac.uk/schools/cs/ead/work/desouz.pdf>

Contact Information:
Dr Tim Katz,
Department of Product Design,
University of Brighton,
Brighton BN2 4GJ
United Kingdom,
Tel: +44 1273 642217
Email: t.katz@brighton.ac.uk

Richard Morris,
Department of Product Design,
University of Brighton,
Brighton BN2 4GJ
United Kingdom,
Tel: +44 1273 642307
Email: r.d.morris@brighton.ac.uk

Seyed Reza Mortezaei,
Department of Product Design,
University of Brighton,
Brighton BN2 4GJ
United Kingdom,
Tel: +44 1273 642247
Email: s.r.mortezaei@brighton.ac.uk