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ADDRESSING MULTICULTURALISM FOR E-LEARNING IN HIGHER EDUCATION ENVIRONMENTS: A VIEW OF SOUTH EAST EUROPE

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ABSTRACT
World Wide Web with the rapid development of Information and Communication Technologies (ICT) in HE has caused changes in the way teaching and learning is viewed increasing the diversity of the students’ cohorts. Thus, students will increasingly be asked to interact with other students in multicultural environments for which they may be ill-prepared. This study identifies potential communication problems of students from South East Europe when they collaborate and co-operate in a synchronous chat and investigate if these problems can be related and attributed to differences arising from the diversity of students’ cultural backgrounds. This study followed a mixed method approach to research by employing both quantitative and qualitative research methods of data collection and analysis was employed in a sample of 40 students. The results of this study showed that communication problems may arise between the participants from the investigated countries concerning the power distance cultural dimension. Although communication problems were identified, communication never broke down and the groups were all able to fulfil the goals of the activity more or less. The paper concludes that a sound appreciation or at least acknowledgement of the problems associated with diversity is essential for the survival of a multicultural teaching and learning activity not only for cultures with obvious differences such as between Chinese and American cultures that have already been proven, but for closer cultures of the same region (SEE Region) as well. This research is one of the few studies, which examines cultural communication problems between students coming from close cultures with common historical background.

KEYWORDS

1. INTRODUCTION

The theoretical background of this study is based on the previous researches of Hofstede’s (1980) model of measuring and identifying cultures and the multicultural group conflict theory of Adler (1991) as discussed and cited in Applebaum et al. (1998). More specifically, Hofstede (1980:23) revealed that problems could be categorised and then attributed to culture relating them to what Hofstede (1980) names cultural dimensions:

- Power Distance: Social inequality, including the relationship with authority;
- Collectivism vs. Individualism: The relationship between the individual and the group;
- Femininity vs. Masculinity: Concepts of masculinity and femininity;
- Uncertainty Avoidance: Ways of dealing with uncertainty;
- Long Term Orientation.

Hofstede’s (1980) cultural dimensions referred to business relations at first but included other areas in his latter works (Hofstede 1997) such as education. The cultural dimensions as argued by Hofstede (2005:36) can provide an initial method of understanding of behaviours that can be attributed to culture.

Concerning the power distance relation to education, a high power distance score indicates the existence of a teacher-student inequality that caters the need for dependence well established in the student’s mind. In this group of countries teachers are treated with respect and in some cases students may have to stand up...
when teachers enter classroom. Inside the classroom it is the teacher that initiates all communication; students speak up only when invited to do so. Therefore, the educational process is highly personalised and what is transferred is not seen as an impersonal ‘truth’, but as the personal wisdom of the teacher.

On the other hand, countries with small power distance scores are supposed to treat students as equals and expect to be treated as equals by the students. The educational process is student centered with a premium on student initiative. Therefore, in such countries the students take control over their own learning and teacher plays the role of the facilitator rather than the role of the processor of the absolute true knowledge that is never questioned. The educational process is rather impersonal and what is transferred is ‘truths’ or ‘facts’ that exist independently of the particular teacher. Thus effective learning in such situation is based more on the two-way communication between students-to-students and between students-to-teacher.

Concerning the Collectivism vs. Individualism dimension, a teacher coming from an individualistic culture in a collectivist environment will come across the problem that students from collectivist environments do not speak up even when the teacher asks a question. They are waiting the teacher to address a question to a particular student personally and they tend to form subgroups from the same ethnic background.

On the other hand, in the individualist societies, education aims at preparing individuals for a place in a society of other individuals. Therefore the purpose of learning is less to know how to do as to know how to learn. In this sense as it is argued by Hofstede et al. (2005:98) “the individualist societies try to provide the competencies necessary for ‘modern man’” viewing the acquisition of a degree as way of providing them higher status. Thus, individuals may enter into the temptation of acquiring a diploma with any mean that is available to them, leading to behaviours like cheating or buying a degree in the black market.

Concerning the Femininity vs. Masculinity dimension, a low score ranking indicates feminine societies. In feminine cultures the teacher will rather praise weaker students in order to encourage them, than openly praise good students. Thus awards for excellence whether being a student or a teacher is a term that is used in masculine cultures. Moreover, in feminine cultures the average student is consider the norm and in masculine cultures the ‘best’ students are the norm. This difference is noticeable in classroom behaviour as students from masculine cultures try to make themselves visible in class and compete openly with each other. Thus failing, in school is considered to be a disaster in masculine countries. Furthermore, the criteria for evaluating both teachers and students differ between masculine and feminine cultures. In masculine cultures teachers’ brilliance and academic reputation and students’ academic performance are the dominant factors. On the other side in feminine cultures the factors that play an important role are teachers’ friendliness and social skills and students’ social adaptation.

Concerning the Uncertainty Avoidance dimension, a high score ranking typifies a country demonstrating low tolerance toward uncertainty and ambiguity. In such countries, it is more preferred that educational activities should be structured, with precise objectives, detailed assignments and strict timetables and evaluation should be based on accuracy. Moreover students expect the teachers to be experts and provide all the answers.

On the other hand it is more preferred that activities should not be much structured, and the situations should reinforce open-ended learning with vague objectives, broad assignments and no timetables at all and evaluation should be based on originality. The teacher is respected if he or she uses plain language and books that explain difficult issues and concepts in ordinary terms. Intellectual disagreement in these cultures can be seen as a stimulating exercise and achievement is attributed to individual ability.

Going one step further Applebaum et al. (1998) citing the work of Adler (1991) identified that in a multicultural group conflict arises from the cultural diversity inside the group and could be summarised around two main problems:

1. Mistrust – group members tend to accept and adhere to opinions of other group members of their own culture rather than to those of other cultures;
2. Miscommunication – based on cross-cultural communication problems, as follows:
   a. Cross-cultural misperception based on the premise that an individual perceives what he/she expects to perceive;
   b. Cross-cultural misinterpretation based on the principle of stereotyping – individuals categorise situations from their own countries perspective and apply it to other countries;
c. Cross-cultural misevaluation based on the premise that individual’s culture is used as the base for evaluating and thus categorising other cultures as good and normal if they are similar and bad and abnormal if they are antithetic.

Concerning online interactions, three categories of problems affecting online interactions have been identified in the literature (Sherry 2000):

- Technological factors – the technology and its related tools and mediating artefacts;
- Individual learner’s characteristics and perceptions - apart from experience with computers, social influence of peers and teachers, parental education, gender, and communication apprehension, these are closely connected to values, perceptions and etiquettes that vary for different cultural and national groups;
- Organisational factors - such as administrative and technical support, staff development time, distribution of equipment.

Moreover, it is clear that the proposition above could be complemented with two additional categories:

- Teaching and learning pedagogical models and approaches – which influence the use of collaborative learning activities, as well as their preparation and moderation;
- Group dynamics issues – which in the end are a product of the processes of social negotiation and construction of collective knowledge in the group and are closely dependant on the different elements that constitute the group.

Therefore, different combinations of pedagogical approaches and technological solutions may have very crucial impact when establishing learning activities aimed at culturally diverse groups of students. This impact will ultimately result in either success or failure of the group dynamics and therefore of the learning activity itself. Therefore, careful attention needs to be put into considering aspects of the e-learning activity setting, moderation and composition of the group.

Consequently, research in the field has identified that cross-cultural difference – i.e. difference between cultures and/or between a dominant culture and subcultures in the same group – can influence learning and needs to be considered when designing and implementing learning activities and environment (Zinkiewicz et al. 2003). These cross-cultural problems include low-level group cohesiveness, poor communication within groups, poor decision-making, and social loafing (uneven participation by group members) and can balance out the productivity gains when working with groups (Zinkiewicz et al. 2003). These problems compound the traditional difficulties to group interaction with computer mediated communication (CMC): production blocking, impersonality, and communication difficulty (Lebie et al. 1996).

From this argumentation it is clear, that when considering the use of e-learning activities with multicultural groups, attention needs to be put on aspects of the CMC technology to be used, the pedagogical models to be adopted and the group dynamics that will emerge as a consequence.

2. RESEARCH APPROACH AND DESIGN

The general research question addressed in this paper is if problems (conflicts) of communication, collaboration, co-operation in multicultural groups engaged in synchronous e-learning activities can be attributed to cultural differences. In order to answer this research question, a mixed method approach to research by employing both quantitative and qualitative research methods of data collection and analysis was employed. More specifically, Hofstede’s questionnaires have been used in order to provide a better understanding of the cultural backgrounds of each participant. Then quasi-experiments were performed in order to produce the communication logs that will provide areas of communication conflicts. Finally, one-to-one interviews were done so as to clarify and further explain the identified communication conflicts that resulted from the log analysis and their relation to culture.

The participants taking part in this study were undergraduate students from Computer Science and Business Administration and Economics departments of CITY Liberal Studies, a private university based in Greece. The students were selected in volunteering basis. In the total of forty students participating in this study, fourteen were from Nation W, fourteen were from NATION X, four were from Nation Y, four were from Nation V, and four were from Nation Z. The participants were divided into eight groups of five students each. In these eight groups four were comprised by students from the same nationality, constituting our control groups, and four from mix nationalities.
At the first stage of the research the participants were given Hofstede’s questionnaire (VSM 94) to complete. Then the groups were given a case study to read and four questions to answer. The choice of the specific case study was based on a topic that can embrace the two disciplines from where the participants are coming from: Computer Science and Business Administration and Economics Department. More specifically, the case study used in this research was adopted from CIO-Insight: Strategies for Business Leaders¹ and was altered by the researchers in order to be more comprehensible by undergraduate students. The questions provided in the case study were intentionally reinforcing the discussion on potentially conflicting areas as were identified by the analysis of the questionnaires. The groups were given forty minutes to one hour to complete the given activity by using a synchronous chat as the only way of communication. After the end of the lab experiment, each participant was interviewed. The interviews provided to the researcher a way of further identifying the students’ view of the discussion and clarifying the problematic communication identified in the analysis of the communication logs

3. FINDINGS

3.1 Questionnaire

This section describes the results of the analysis for each stage of this study as stated in the previous section. The first stage involved the analysis of Hofstede’s questionnaire and the recalculation of the values for each dimension. The application of Hofstede’s questionnaire was a major step since we would have expected a change in values from the original Hofstede’s results, based on the instability of the SEE region. It should be noted that long-term orientation (LTO) dimension was not included as part of the analysis because the groups were created only for this single activity and seized to exist afterwards. This is considered as insufficient time to measure accurately LTO.

The results of the analysis showed that there is a variation from 8.13 for NATION X to 52.50 for Nation Z concerning the Power Distance Index (PDI). This difference in scores indicates that students coming from NATION X and Nation Z could be considered as having antithetic cultures and thus potential problems may be attributed to this dimension. Concerning the individualism (IDV) dimension the participating countries’ scores are almost the same ranking from 70 for Nation V and 104.69 for NATION X. These scores indicate that all the countries are individualistic in nature looking more for the individual and less for the collective groups. In the masculinity (MAS) dimension is observed the highest difference. The minimum score is 40 for Nation V and 135 for Nation Z. This indicates the second group of antithetic cultures comprised by the countries scoring low (Nation W, NATION X and Nation V) and those scoring high (Nation Y and Nation Z). Finally, in the uncertainty avoidance dimension (UAI) differences in scores can be clearly observed. The minimum score was -25 for Nation Z indicating that Nation Z are more likely to follow uncertain situation and procedures with the tendency to be more prone to risk, and the maximum was 85.63 for Nation W indicating a country that do not prefer uncertain situations and avoid risk. Concerning the score of Nation Z (-25) indicates that the country is weaker on uncertainty avoidance, since the theoretical ranges according to this dimension are -90 to 120 (Hofstede G., 1997).

Concerning MAS dimension, it is observed in our results that Nation Z and NATION X differ from Hofstede’s results. This could be explained by the fact that more male students enroll on Computer Science course indicating that this phenomenon is common to all Computer Science departments in Europe (Greening 1999; Schinzel 2002). Thus, Computer Science department in our university is no exception. Thus, in democratic countries equality between gender roles is fostered. Finally, regarding UAI dimension, the difference of our results with Hofstede’s for Nation V can be explained by the fact that Nation V is so far below the EU level concerning the political and economical infrastructure clearly affecting the individuals uncertainty levels (European Commission 2004). Nation Z’s difference on the other hand can be attributed to the impact that EU’s accession negotiations has made on the Nation Z’s political agendas by harmonising policies to the EU standard causing a feeling of uncertainty (Spedzarrova 2003).

Focusing on the Power Distance dimension potential communication problems may probably take place between NATION X and Nation Z. On the one hand NATION X students may follow a more student-centred

¹ CIO-Insight is a business web resource available at http://www.cioinsight.com
approach to teaching and learning assuming more responsibilities and leading roles. On the other hand, Nation Z students may prefer a more teacher-centred approach to teaching and learning by requiring the presence of teacher leading and guiding the discussion.

3.2 Communication Log Analysis

At the next stage the researcher performed a quantitative and a qualitative analysis of the communication logs. In the quantitative analysis sub stage the researcher identified and counted the instances of students’ posts based on the following contribution categorisation:

- Neutral Contributions: referring to contributions that have minimum input to the ongoing discussion but do not cause a distraction;
- Meaningful Contributions: referring to contributions that add to the discussion process and lead the group towards a fruitful discussion;
- Agreement Contributions: referring to contributions that state the agreement on opinions discussed;
- Disagreement Contributions: referring to contributions that state the disagreement on opinions discussed.

The results of this analysis showed that the control groups, i.e. the four groups consisted from students from the same culture had a larger number of posts (1066 posts) as opposed to the multicultural groups (495 posts).

The results of the quantitative analysis sub stage provided to the researcher an initial view of the interaction and the behaviour of the students in the eLearning activity. More specifically, the results indicated that multicultural groups have the tendency to post more agreement, disagreement and meaningful statements, and less neutral and conflict statements than the control groups. The existence of higher numbers in the multicultural groups concerning agreement, disagreement and meaningful posts indicate a tendency of the group members to focus on carefully shaping their opinion by posting more meaningful and less neutral and conflict contributions. The behaviour of careful posting displayed by the group members of the multicultural group is in accordance with the belief of Hofstede (2005) that students tend to form groups with members of the same or similar cultures based on the belief that they share common understanding that could facilitate the interaction process. The outputs of this sub stage also provided a clear identification of the general conflicting posts of the communication logs.

At the next sub stage the researcher analysed qualitatively the logs in order to characterise and explain further the conflicting behaviours of group members, roughly identified in the quantitative analysis. The primary categories used in this analysis phase were identified by the works of Hofstede (1980) and Applebaum et al. (1998). The results of the analysis for the Power Distance cultural dimension are presented in Table 1.

Table 1. Categories of Conflict Description

<table>
<thead>
<tr>
<th>Misinterpretation</th>
<th>Misperception</th>
<th>Misunderstanding</th>
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<tbody>
<tr>
<td>Use of Term</td>
<td>Embrace All Views</td>
<td>Wait Members To Answer</td>
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<td>Initiation of Different Opinion</td>
<td>Mixing 2 Questions</td>
<td>Shift Focus Out Of</td>
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3.2.1 Use of Term

This category specifies the situation where the students misinterpret words and give their own meaning based on their cultural background. This misinterpretation causes the discussion to open in order to resolve the misinterpretation. A solution adopted by the other members of the groups is to write general statements to embrace all the possible views of the current discussion in order to reach an agreement. This behaviour was exhibited in the communication in multicultural groups.

For example in such a situation the following discussion could take place.

Nation Y 4: “up to a point, there need to be some policies imposed on employees”.

Nation V 3: “I don’t think dictatorially is the best way of approaching things”.

Nation X 8: “It depends on the company’s, organization’s culture and nature of business, on example in a banking company it is better to be decided and dictatorially imposed”.

Nation Z 3: “In my opinion there should be strict policy rules decided from the top and system administration department should take care of them, however employees should be trained. Exception can be done only in
special cases where security really prevents the job to be done”. This triggers the reaction of Nation Y 4 saying to generalise more on the topic.

3.2.2 Vitiation of Different Opinion
This category refers to specific behaviours of students that are triggered after a specific student insists on his/her opinion. This misinterpretation causes the discussion to either lead on an abrupt end based on time restrictions or to a further continuation of the discussion. This behaviour was observed only in the multicultural groups.

3.2.3 Embrace All Views
This category refers to behaviours of students that are resulted from misinterpreting statements, and describes situations that students try to generalise their answer so as to include all the possible opinions expressed currently on the discussion. This behaviour is observed to have no effect in the resolution of the discussion as it leads to conflict continuation by either continue a general discussion with no end or persist in difference of opinions. Students of multicultural groups exhibited this behaviour

3.2.4 Mixing 2 Questions
This category describes situations where the group members answer two questions at the same time. This situation is triggered either because group members have a confusion regarding their role and activity’s procedure, from informal conversation. A solution, as observed by the communication logs, is for a member to get the leading role of the conversation. This behaviour was noted in the interaction of students in multicultural groups.

3.2.5 Wait Members to Answer
This category refers to behaviours of students that stop the current discussion in order to get the silent members to get involved. This behaviour is triggered after the group members have elected a leader for the specific conversation. It is of particular importance to note that this specific behaviour was exhibited by the control groups.

3.2.6 Shift Focus Out Of
This category describes situations of students where they try to shift the focus of the topic discussed to a more general one so as for all members to indirectly agree. This behaviour is triggered after the embrace all views behaviours as discussed previously. This Shift Focus Out Of behaviour leads either to a short agreement by all members or a continuation of a general discussion. This behaviour is observed in both the control and the multicultural groups.

3.3 Interviews
The analysis of the one-to-one interviews provided the researcher a better understanding about the students’ view of the above exhibited behaviours. Thus, they were used as a tool for better explaining and characterising the nature of the previously described behaviours. The results of the analysis showed that the participating students did not have any problems regarding the use of English, the use of technology or any other problems that they could have faced concerning the chat facility. It is of particular importance to state that although the students did not had previously used synchronous chat for educational purposes they were all using it for personal purposes.

4. DISCUSSION AND CONCLUSIONS
The results presented in the findings section showed that there is an influence of students’ cultural backgrounds when they communicate, collaborate and co-operate in an eLearning activity. More specifically, this research used Hofstede’s questionnaire as a tool for better understanding of the cultural backgrounds of the participating students. The results of the analysis of the questionnaire showed that communication
problems (conflicts) are more likely to occur in PDI dimension between students from NATION X and NATION Z. NATION X students may follow a more student-centred approach to teaching and learning assuming more responsibilities and leading roles. On the other hand, NATION Z students may prefer a more teacher-centred approach to teaching and learning by requiring the presence of teacher leading and guiding the discussion. Thus, it is expected that Nation Z students are more likely to cooperate, since they may expect the presence of the teacher in the discussion, whereas NATION X students are more likely to collaborate, i.e. resolve problems arising by themselves and assign roles and tasks internally.

In the analysis of the communication logs, the researchers identified that control groups by NATION X and Nation W students were exhibiting behaviours like group assignment of clear individual roles and voting for group leader, vitiation of different opinion until the problem is resolved and wait members to answer. Thus, showing the tendency to collaborate as identified in the questionnaires’ analysis. On the other hand Nation Z, were more likely to exhibit the tendency to cooperate and follow behaviours like embracing all views to try to abruptly end the on going discussion, shift focus out of the subject discussed if the subject is taking longer for the group to answer and mixing two questions causing the group to hurry the answer of the previous question. Students from Nation Y and Nation V were more likely to follow behaviours like use of term indicating a loss focus leading to a misunderstanding of a term used in the discussion and vitiation of different opinion showing the indication that they will not proceed to the next question if they are not satisfied with the answer. Finally it was identified in the communication log analysis, and further exploited during the interviews, the missing element of the tutor as a leader and facilitator of the discussion and the students’ roles. These results were in accordance with the researchers’ initial expectations during the questionnaires analysis phase.

Although communication problems were identified in the interaction of the participants and group communication was interrupted due to cultural misperception, misinterpretation and misunderstanding, it never broke down and the groups were all able to fulfil the goals of the activity more or less. The group members in the interviews expressed that they were not satisfied with the answers that their group gave stating and they simply agreed with the answer because of lack of time or because they felt that the discussion was not leading to an end. This indicated that the group members sometimes sacrificed quality for time. Two out of eight groups needed more time (two hours, which is twice the time needed for the completion of the activity). The group members of the two groups that failed the activity stated that the technological factor have not affected their communication. They characterised their lack of selecting a moderator and the definition of their roles as the main cause of miscommunication never passing the second stage of Tuckman’s Group Development stages.

Moreover, students expressed their preference in a control and moderated discussion with a student as a moderator. Probably the introduction of a student and not a teacher moderator would have solved some of the group dynamics problems that students faced in their communication. Thus, although some of the groups faced the problem of the negotiation of roles and procedures, they have bypassed it by electing a student moderator either directly or indirectly.

The results of this study, indicate that a sound appreciation (or at least acknowledgment of the problems associated with) diversity is essential for the survival of a multicultural teaching and learning activity when it involves even the group communication of students from close nationalities (from SEE Region) and not those that have already been proven by the literature (Hofstede 1980, Hall 1977) such as the Chinese and the American culture. Absence of the appreciation of cultural diversity may therefore result in failure of teaching and learning activities, modules and courses.

Moreover, the importance of the results of this study indicates that the cultural diversity of students could affect the learning process and may lead to the failure of the activity. In HE addressing cultural differences needs to be acknowledged much deeper than just simple translating a few learning materials or delivering lectures in English. Thus, students coming from SEE are different as any other European and that they need to be treated with equal respect for their cultural differences. In order to help in achieving the inclusion of the cultural diversity, a great deal more research needs to be done in this area in order to help create new pedagogical designs, inclusive moderating and tutoring strategies and culturally inclusive programmes and learning materials.
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