IFAC

Student Experiences in a Postgraduate Multi-Continental International Stability Education Programme:

The Case of MITRA

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Abstract: In this era of economic instability, change and globalisation it is vital to learn from other disciplines, perspectives and cultures in order to tackle the key issues of international stability in the world today. This study seeks to understand student experiences of a post graduate programme which deals with issues associated with international stability. The study used a case study research methodology and selected the case study of the "MITRA" Erasmus Mundus Masters programme on Intercultural Mediation: Identities Mobilities and Conflict. The study specifically explores the experiences of postgraduate students in this programme and their experiences of interdisciplinary studies and intercultural interactions.

Keywords: education, interaction, international stability, communication, interdisciplinary design

1. INTRODUCTION

Through TC 9-5 and TC 9-2, IFAC has long been a vehicle for disseminating new ideas about interdisciplinary education. TC 9-5 recognises that education is an important way by which to address international stability issues and the long record of publications in this space testify to this. Control and automation engineers must now deal with very complex problems which require an inter-disciplinary approach. In the specific area of international stability, the work of TC 9-5 members has drawn from other disciplines in order to inform developments in control education specifically directed at improving international stability (Annett Juras, 2012) and (Kopacek, 2010). Furthermore, former IFAC president Tibor Vámos, in his opening keynote paper for SWIIS 2012, clearly set out the importance of interdisciplinary and inter-cultural awareness as important pillars for engineering education going forward (Vámos, 2012), especially when trying to understand and address social effects.

Annett Juras (2012) showed how students' perceptions of complex, interdisciplinary educational programmes which are associated with international stability issues can be used to help us understand educational priorities in this important domain. They can also help us to design curricula and contribute to the work of both TC 9-2 and TC 9-5 in very particular ways.

In this era of economic instability, change and globalisation it is becoming even more apparent that it is vital to develop skills of communication and team work. It is vital to learn from other disciplines, perspectives and cultures in order to tackle the key issues of international stability in the world today. This study seeks to understand student perceptions of a postgraduate programme which deals with issues associated

with international stability. More formally, the study used the experiences of international students as active subjects in the construction of international stability in order to establish the objective of the research reported here. This objective was:

to explore student perceptions of a postgraduate education programme which addresses issues of international stability.

2. LITERATURE REVIEW

Even in the year 2013 division between societies is still causing international instability. Camiller (2004) describes cultural divisions as a threat to international stability; "*the culture, identity, and religious faith that used to be subordinate to political and military strategy now define priorities on the international political agenda. We are witnessing the invasion of politics by culture*". Down through the ages there have been different methods used to tackle threats such as these cultural divisions, with various academics and philosophers trying to understand and overcoming the sense of 'otherness' that has sprouted from such cultural barriers and that has lead to so many international stability issues (Camiller, 2004).

Education has been used in various domains as one such approach. Education can inform and educate people in the issues surrounding international stability and various programmes have attempted to overcome this sense of 'otherness'. For instance in Kosovo, the Institute of Engineering Management Education have set up third level engineering programmes designed to give the first step to improving national infrastructure through innovative educational engineering programmes (Kopacek, 2010). In order to get closer to achieving international stability, Annett Juras (2012) highlighted the importance of developing mutual trust among students and overcoming boundaries that may appear. This paper describes these boundaries to include cultural and disciplinary boundaries.

Fault lines and subgroup dynamics on a large scale can lead to instability issues from a group level in a team to at a national or even at an international level. These issues can result in conflicts such as the post-election violence in Kenya (Barkan, 2011). However, Willis (2010) discusses similar fault lines and subgroup dynamics causing conflicts within small groups and the development of the 'us' and 'them' mentality. This mentality is driven by various differences such as culture, gender and professional divides (Willis, 2010). Kile (2002) further discusses the competition between these perspectives, for example, ethnic, social and religious ideologies leading to an unwillingness to stabilize the larger systems. These authors demonstrate the need to tackle these divides and differences at a basic level in order to learn from them and develop these skills to improve stability at a larger scale.

Kathleen Juhl (2006) explains that it is not possible to *teach* people about different cultures. She describes that students need to experience these cultures, to improvise and to use their existing knowledge to develop new knowledge of culture and human behaviour. She subsequently goes on to state that intercultural education programs are, of course, ideal contexts for this kind of learning (Kathleen Juhl, 2006).

It is clear that, when dealing with issues surrounding international stability, interdisciplinarity and intercultural interactions are two important dimensions. It is vital to recognise and learn from these dimensions, particularly in relation to international stability education. It is evident from the literature that tackling issues concerning international stability requires an interdisciplinary and an intercultural approach. There are two consequences of this for a postgraduate programme tackling such issues; the need to look at student perceptions of interdisciplinary studies and of intercultural interaction. This leads us to our two research questions. This study is particularly interested in postgraduate international stability education and drawing lessons for IFAC control and automation education from student experiences. In summary, the research questions were:

R.Q.1. What are the student experiences of the interdisciplinary aspects of an international stability postgraduate education programme?

R.Q.2. What are the student experiences of the intercultural interactions of an international stability education programme?

3. RESEARCH METHODOLOGY

This was an exploratory study to gain an understanding of the student experiences of an interdisciplinary, intercultural programme which deals with issues surrounding international stability. This study used a case study as they can give an invaluable understanding, extending experience and increasing conviction on a subject (Gray, Designing Case Studies, 2009). They are key in the explorations of ambigous subjects and issues.

The target case needed to satisfy certain requirements in order to be selected for this research. These were:

1) It had to be a postgraduate programme

2) It should include at least three different disciplines (interdisciplinary requirement)

3) It must operate in more than one country of study and have at least three different nationalities of students participating (intercultural requirement)

The new "MITRA" Erasmus Mundus Masters programme on Intercultural Mediation: Identities Mobilities and Conflicts met each of these requirements and therefore was selected. It has 14 different nationalities participating in this programme and is run over a consortium of eight European and non-European universities in eight different countries. The programme is bringing together the following core disciplines: political philosophy, sociology, anthropology, literature and literary criticism, linguistics, social psychology, history and geography. Therefore it was certainly within the minimum requirements necessary for this case study.

Data on the experiences of students was gathered to discover the student experiences regarding interdisciplinary studies and intercultural interactions within international stability third level education programmes.

Data Gathering and Processing

The study used primary data gathered through the use of a qualitative questionnaire. This questionnaire was completed by the current students of the MITRA Erasmus Mundus Masters programme and focused on key areas including: interdisciplinary studies and intercultural interactions. The full class of seventeen students were invited to participate and complete questionnaires. The data was collected and standard qualitative analysis was conducted using Axial and Open Coding (Gray, 2009). A limited amount of numeric quantitative data was collected and analysed but the majority of the data was qualitative.

4. FINDINGS

This section sets out the data collected during this study.

a. Case Study Profile

The MITRA Masters: Intercultural Mediation: Identities, Mobility's and Conflicts is newly established among the Erasmus Mundus Master Courses. This programme is a bi-lingual programme designed using the fundamental concept of interlinking disciplines. The dialogue between different academic disciplines is indeed one of the key features of the programme. The issues tackled by the MITRA programme are so complex that using a single academic approach could lead to the oversimplification of issues. For this reason, the programme attempts to bring together various core disciplines, in hope that interdisciplinary approach will shed

more light upon the issues surrounding international mobility, interculturality, international stability and international mediation.

However, the dialogue is not only between the disciplines, it becomes more complex: the MITRA programme combines examining the issues tackled from a range of disciplines but also through various and differing cultures. MITRA is a programme of Intercultural Mediation. The word "MITRA" represents values of friendship and loyalty and furthermore the "M" in MITRA signifies mediation and the "TRA" signifies transformation, both necessary for better relations within an equal and more just world. The name itself suggests that a particular accent has been put on the intercultural dimension of the programme, not least in the fact that the programme is implemented by a consortium of eight universities from three different continents.

The interculturality of the programme is further reinforced by the diversity of student cultural backgrounds, a true testament to the intercultural character of the programme. It could therefore be said that the MITRA programme is an intercultural programme on multiple levels: not only does the programme study interculturality and intercultural mediation, but it also takes place across eight diverse cultural contexts, with students hailing from all corners of the world.

Seventeen questionnaires were distributed targeting the total population of the class and twelve responded, a 70.5% response rate. Of the 12 respondents the average age of the students was found to be 27 and each respondent has a different nationality with five Europeans, two Asians, two Africans and three South Americans.

b. MITRA as an interdisciplinary programme

All students had a minimum of a Bachelors degree and maximum a Masters qualification. These qualifications were in a variety of disciplines including: language teaching, economics, psychology, history, gender studies, literature, migration studies, anthropology, international relations and international development.

On average, the respondents felt that the experience of interdisciplinary studies on this programme was 3.8 out of 5, where 1 is very negative and 5 is very positive. Only one response was below 3. Within the questionnaire, the students gave their opinions of the most positive aspects of the programme as an interdisciplinary programme. These are categorised in Table 1:

Number of Responses (Three per respondent)	Percentage	Category of Response
12	33%	Various perspectives and backgrounds shared
9	25%	High quality of programme
7	19%	Interactions with one another
6	17%	No response
2	6%	Holistic thinking
36	100%	

Table 1. Responses to B. Q2: What three things worked best? Why?

Each respondent's opinion described the things that worked best within each of these categories.

"The students came from different academic and professional backgrounds and therefore brought different approaches to each issue or topic" (Respondent 1)

Respondent 11 discussed the advantages of working in an interdisciplinary programme with colleagues and staff coming from various backgrounds, describing how the sharing of each person's specialised skills enabled them to come together in solidarity. Also Respondent 5 felt that the contact with different disciplines provided a world view far more complex and comprehensive than would be found otherwise. Respondent 4 reinforced this with their opinion that the wide range of topics develops one's ability to see issues in a new way.

Secondly, the respondents gave their recommendations and perspectives on key improvements possible within the programme. Table 2 classifies these key recommendations:

Number of Responses (Three per respondent)	Percentage	Category of Response
15	42%	No response
12	33%	Course content
5	14%	Make the course more interdisciplinary
4	11%	Course administration
36	100%	

Table 2. Responses to B. Q3: What three things could be improved? How?

"Put more emphasis on practical subjects" (Respondent 3)

In answering this question, a number of respondents felt that the course had been too theoretical and that more practical work was necessary within these various disciplines.

"Inner coherence of the course between the professors and their subjects. Teachers should work in greater collaboration" (Respondent 2)

A further finding was that although the course was interdisciplinary it was not made clear how these disciplines related to the overall goal of the programme of Intercultural Mediation. Other students, for example Respondent 1, felt that the programme tended to be multidisciplinary rather than interdisciplinary, lacking coherence.

Part B Question 4 of the questionnaire asked the students the most important things that they learned in while working within an interdisciplinary programme. Table 3 classifies their responses within four main categories:

Number of Responses (Three per respondent)	Percentage	Category of Response
10	28%	Learned new approaches
9	25%	Interaction with each other is key
7	19%	The importance of working across disciplines
5	14%	No response
3	8%	It is difficult to run an interdisciplinary programme
2	6%	Learned about my own capabilities
36	100%	

Table 3. Responses to B. Q4: What are the most important things you learned working within an interdisciplinary programme?

"Studying various disciplines is vital for developing well rounded opinions and expertise that will enable you to deal with issues arising in your expertise" (Respondent 4)

The majority of the respondents felt that they learned something positive from the interdisciplinary programme, for instance Respondent 5 felt that interaction and dialogue between disciplines and knowledge exchange between students is a fundamental experience. Others learned that you do not have to be an expert to take advantage of a whole new discipline and were able to benefit from new approaches to problems and topics.

"interdisciplinarity is the base of research. In social science every knowledge is interdisciplinary because sciences are not tightly separated and it is necessary to improve as much as possible interdisciplinary knowledge" (Respondent 11)

The majority of students described the interdisciplinary approach as very beneficial. Respondent 1 described that they felt an interdisciplinary approach is the only way to understand complex or contemporary issues but that the transition from multidisciplinary to interdisciplinary is a difficult one.

c. Intercultural interactions on the MITRA programme

Regarding the intercultural interactions that the respondents had on the MITRA programme, students rated their experiences of intercultural interaction as 4.4 on a scale of 1 to 5 where 1 is very negative and 5 is very positive. The students described their views on the three things which worked best regarding intercultural interactions on this programme and the three things which were most difficult. Table 4 and Table 5 list the key findings from their responses:

Intercultural Interactions: What worked best?		
Number of Responses (Three per respondent)	Percentage	Category of Response
14	39%	Learning from each other
12	33%	Student interactions and friendships
5	14%	Interactions with and qualities of MITRA programme and staff
5	14%	No response
36	100%	

Table 4. Responses to C. Q2: What three things worked best? Why

"Friendships which develop and the openness of the majority of students" (Respondent 2)

The diversity and openness of both the students and staff on the programme was found as working very well on this programme. The friendships which developed from these intercultural interactions were mentioned by over half of the students as being very positive outcomes of the intercultural interactions.

"Sharing the experiences from our different cultural backgrounds" (Respondent 9)

The possibility of sharing opinions, perspectives and stories both regarding the academic and non academic aspects of the programme was described as being a very good experience which showed that intercultural interaction goes well beyond the shallow comparisons between people of different cultural backgrounds. The intercultural interactions on this programme also were seen to break stereotypes and develop social skills of the students involved.

"realise that people can be very similar and very different being from the same culture or not" (Respondent 5)

The above respondent felt that they learned from the intercultural interactions that culture is not the only definition of somebody. The majority of respondents discussed the positive experiences learnt from these intercultural reactions:

"when you are in another culture, your eyes change and the way you see yourself and others" (Respondent 7)

Intercultural Interactions: What was most difficult?		
Number of Responses (Three per respondent)	Percentage	Category of Response
16	44%	No response
15	42%	Communication and resulting conflicts
3	8%	Respect for other peoples opinions
1	3%	Integration
1	3%	N/A
36	100%	

Table 5. Responses to C. Q3: What three things were most difficult? Why?

"Communication: to learn to listen to others without prejudices" (Respondent 7)

Communication and misunderstandings were felt to be the most difficult during the intercultural reactions. These difficulties were described to stem from language barriers, different customs (such as slang or gestures) and listening to others without prejudices. Respondent 1 described that the same things that worked best were the most difficult at times:

"making people from different cultural backgrounds work together is both enriching and challenging, the best things I gained from experiencing intercultural interaction on a daily basis stemmed from overcoming initial intercultural challenges" (Respondent 1)

d. Conclusion

Overall the student experiences of interdisciplinary studies and intercultural interaction on this postgraduate programme dealing with issues of international stability were positive. However, the students did also experience negative experiences during this programme.

5. DISCUSSION

The evidence has suggested that the MITRA masters programme is a good case study to examine as it is addressing issues of international stability through the use of interdisciplinary studies and intercultural interactions within the programme. Section 6.a found a clear interdisciplinary nature in relation to the academic and professional backgrounds of the students. This shows the awareness of the need for interdisciplinarity of the programme during the selection of students. Results from Section 6.a also demonstrated the awareness of the importance of intercultural interactions of the programme co-ordinators during the selection of students as all respondents had a different nationality.

Research Question 1, *what are the student experiences of an interdisciplinary programme*?

The findings in section 6.b showed an overall positive experience with only one response below three on the Leichardt Scale. One third of responses discussed the advantages of sharing of various perspectives and backgrounds as a positive experience. The respondents felt that studying on an interdisciplinary programme improved their view of their world and assisted them in seeing issues in a new way. This experience will assist in opening their eyes to new dimensions and becoming more open to new perspectives. This can so assist in improving sub group dynamics and fault lines appearing as discussed by Willis (2010) and therefore these experiences can be used for learnings at a larger scale to deal with international stability issues.

However, the students did have some negative experiences of interdisciplinary studies. Not all students found the programme to be truely interdisciplinary, but rather multidisciplinary and believed that it was necessary to improve this aspect of the programme to further improve future student experiences on the programme. The students also found that it was not always clear how each discipline related to intercultural mediation, the core objective of the programme. This needs to be clarified in order to ensure that all the students can see a relevance to each discipline and thereford improving the student experience of interdisciplinary studies on this programme.

Research Question 2, *what are the student experiences of an intercultural programme*?

The results in Section 6.c discovered that the student experiences were very positive, with an average of 4.4 on the Leichardt Scale. The learning from and the interactions with each other were the biggest advantages from the experiences of intercultural for the respondents. Interestingly, the highest percentage of responses regarding negative experiences also related to communication with each other. This shows the advantages of different cultures working together and interacting but also the difficulties that can arise when interacting together. Although many respondents experienced situations of misunderstandings and experienced various issues when interacting with each other, their experience overall was positive, suggesting that they learned from and overcame these misunderstandings. This can give hope for international stability with friendships and positive interactions overcoming other communicational barriers.

In conclusion more work needs to be done in order to examine in more detail the experiences of the students and to gather deeper insights for the benefit of this and other programmes.

6. CONCLUSION

We can conclude from the evidence that the majority of student experiences of interdisciplinary studies and intercultural interactions on the case study of a postgraduate programme dealing with issues of international stability were positive. The study has found evidence to suggest that interdisciplinary studies can develop essential skills in students for dealing with issues of international stability and to suggest that intercultural interactions are fundamental in international stability education.

Further medium and long-term analysis of the MITRA masters programme case study, a programme at the forefront of developing an intercultural and interdisciplinary third level programme, is necessary for further learning and improvements to programmes similar to this even in other disciplines. Adapting and developing approaches similar to MITRA and to other integrated intercultural programmes will assist in the development of an integrated, effective thought process which will support the maintenance of international stability.

These learning's could also be taken by the European Commission, who manage 130 Erasmus Mundus master programmes. The MITRA programme and 19 other master's programmes are run within the Erasmus Mundus core discipline of Humanities and Arts. All of these programmes are based on cooperation and a focus on mobility to promote dialogue as well as an understanding between people and cultures, therefore the learning's from this study could greatly benefit each of these programmes. Moreover, they could give further learning's in the area by studying their own programmes in a similar fashion. Control and automation system research can assist in developing these

holistic programme frameworks and can improve the effectiveness of their programmes when tackling issues surrounding international stability.

Lessons Learned

Research Question 1, *what are the student experiences of an interdisciplinary programme*?

It was found that student interactions, learning from and sharing with each other are fundamental in the creation of a positive experience of interdisciplinary programmes. The students learned that, through their experience on an interdisciplinary programme, interdisciplinarity is a fundamental experience in postgraduate programmes and can improve their skills in dealing with various issues that arise including those related to international stability. The quality of the programme and content can add to the positive or negative experience of an interdisciplinary programme. For instance, although the respondents felt the programme was of a high quality, the course content created confusion and took away from the positive experience of interdisciplinarity. This needs to be tackled by the MITRA programme, and other similar programmes, in order to improve the student experiences and maximise the potential of the programme.

Research Question 2, *what are the student experiences of an intercultural programme*?

The findings discovered that the respondent's experiences were very positive regarding intercultural interactions on this programme with best experiences described as their learning from each other, their interactions and friendships. However, the most difficult times involved communication issues. This demonstrates the importance of intercultural interactions in a postgraduate programme and the overcoming of cultural barriers such as communication issues.

Limitations

Case studies are, by definition, limited to the lessons learned from a particular case, and are therefore not strictly generalisable to all cases. The data gathered here could also be improved by examining the MITRA (or other programmes) longitudinally, to see how learning happened and how problems were overcome (or exacerbated) as the programme progressed. For example, data gathered after each semester could show if student experiences change from semester to semester and from location to location as students move to different campuses. This would provide a richer picture of experiences. Also, the study presented here does not address different modes of delivery (didactic, problem-centred etc.) and how they might contribute to improved learning in interdisciplinary, intercultural settings. These are all topics for further study.

Contribution to Research Knowledge & Implications

This study is relevant to various other educational domains, including automation and control engineering studies, where international stability is an important topic. This paper further develops the debate on control and automation postgraduate education in relation to international stability. It highlights the importance of educational programmes as a way to address issues of intercultural instability.

In spite of its limitations, this study contributes to our understanding of student experiences of interdisciplinarity and intercultural interactions in a postgraduate programme, two essential aspects assisting in the maintenance of international stability. Clearly, much more work needs to be done, not only to gain a deeper understanding of these experiences but also to discover if similar experiences are found in other postgraduate programmes and what can be learned from them.

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