

# Master Thesis Reader

---

Research and Innovation in Higher  
Education

# 2017



Attila Pausits (Hg.)

Erasmus Mundus Joint Master Degree

Research and Innovation in Higher Education

Master Thesis Reader

2017

Edition Universität für Weiterbildung Krems

2022

Copyright: Creative Commons Attribution - NonCommercial

ISBN: xxx



With the support of the  
Erasmus+ Programme  
of the European Union

The Master in Research and Innovation in Higher Education (MARIHE) is an Erasmus Mundus Joint Master Degree offered by a consortium of University for Continuing Education Krems (Danube University Krems) (Austria), Tampere University (Finland), University of Applied Sciences Osnabrück (Germany), Eötvös Loránd University (ELTE) (Hungary), Beijing Normal University (China), and Thapar Institute of Engineering and Technology (India). Prior to year 2018, MARIHE was conducted by the four partners Danube University Krems (Austria), University of Tampere (Finland), University of Applied Sciences Osnabrück (Germany), and Beijing Normal University (China).

University for  
Continuing  
Education Krems



HOCHSCHULE  
OSNABRÜCK  
UNIVERSITY OF APPLIED SCIENCES



Eötvös Loránd  
University



北京師範大學  
BEIJING NORMAL UNIVERSITY



THAPAR INSTITUTE  
OF ENGINEERING & TECHNOLOGY  
(Deemed to be University)

## Contents

1	Introduction .....	1
2	Understanding University-Society Engagement for Innovation: The role of individual actors in institutionalizing the regenerative medicine research field in University of Tampere (Finland), 1986-2017 .....	4
3	Conceptualization and Interventions of Social Inclusion: in Higher Education Institutions .....	16
4	Entrepreneurial University in Thailand: A Case Study of King Mongkut's University of Technology Thonburi (KMUTT).....	30
5	Responsiveness of Higher Education Institutions in Eastern Ukraine to the Crisis Situation .....	39
6	Development of an Environmental Management Game for Higher Education Professionals.....	61
7	Autonomy of Ethiopian Higher Education Institutions: Perception of Academics and Administrators (a case study of Jimma University) .....	86
8	Integration of Refugees in Austrian Universities .....	97
9	Autonomy of Higher Education Institutions in Kazakhstan: Case Study of Public and Private University.....	107
10	The Use of Information for Decision-Making: Designing Academic Programs .....	123
11	Academic returnees' knowledge transfer in Vietnamese public universities .....	139
12	The Dynamics of Academic Collaboration in Interdisciplinary Graduate Programmes: Case Study .....	149

# 1 Introduction

## 1.1 Background information on the creation of the Master Thesis Reader

Each year, a Master Thesis Reader is published by University for Continuing Education Krems/Austria. This reader collects the master's theses of one cohort. Each graduate writes an extended summary (an extract of his/her thesis), which serves as one chapter of the reader. In his/her summary, the graduate gives insight into the background (problem statement, research question, theoretical background), the methodology (approach in use), the key findings (main results), recommendations (for future research) and references.

This book is a collection of summarized master's theses produced as the final and individual research project within the Erasmus Mundus Joint Master Degree Research and Innovation in Higher Education (MARIHE), cohort 4 (2015-2017).

For further reading, the full master's theses texts are available in the library of University for Continuing Education Krems, accessible on the following link: [Basic Search: Discovery Service for DONAU UNI KREMS \(ebscohost.com\)](https://www.ebscohost.com/BasicSearch/Discovery/ServiceForDONAUUNI-KREMS)

## 1.2 Introduction of MARIHE programme

In Europe as well as in other regions of the world, fundamental transition processes are taking place in the systems of research, innovation, and higher education: from regulation to deregulation and competition, from steering to market, from administration to management. Higher education and research institutions need highly trained experts who are able to analyse these new contexts and who have management and leadership skills to deal with the changes. The Master in Research and Innovation in Higher Education (MARIHE) is an Erasmus Mundus Joint Master Degree with a duration of four semesters/two years, leading to a master's degree with 120 ECTS. It is offered by a consortium of University for Continuing Education Krems (Danube University Krems) (Austria), Tampere University (Finland), University of Applied Sciences Osnabrück (Germany), Eötvös Loránd University (ELTE) (Hungary), Beijing Normal University (China) and Thapar Institute of Engineering and Technology (India). Prior to year 2018, MARIHE was conducted by the four partners Danube University Krems (Austria), University of Tampere (Finland), University of Applied Sciences Osnabrück (Germany), and Beijing Normal University (China).

MARIHE provides students a unique opportunity to develop a sound understanding of higher education systems and university development around the world. Students have the opportunity to study in at least three different universities and countries in Europe and Asia. During an internship provided by international enterprises and organisations, they get insight into fields of practice.

As an Erasmus Mundus Joint Master Degree, MARIHE is supported by the Erasmus Mundus Programme of the European Commission. By these standards, it is one of the leading master programmes in Europe. MARIHE addresses university graduates that want to pursue a career in the higher education and research sector as managers, administrators, consultants, policy analysts, researchers and decision makers. Possible employers are higher education and research institutions, public bodies such as ministries for science and education, enterprises specializing in education, think tanks and non-governmental organizations. Graduates of MARIHE are able take the lead in the future management and development of research and innovation in higher education.

International and European reform agendas have recently focused on a number of measures that are argued to lead to the modernisation of higher education as a sector and turn the higher education institutions into strategic organisational actors to develop countries and societies. The programme supports the development with respect to the professionalisation of institutional leadership and management functions accompanied by an emerging training and support structure for institutional managers and leaders. MARIHE is a cooperation and mobility programme in the field of higher education that aims to enhance the quality of European higher education and to promote dialogue and understanding between people and cultures through cooperation with Third Countries. In addition, it contributes to the development of human resources and the international cooperation capacity of higher education institutions in Third Countries by increasing mobility between the European Union and these countries.

The curriculum of MARIHE reflects on three perspectives on the change logics involved in the worldwide developments in higher education and in higher education institutions:

- the perspective on Systems in Transition, focussing on general developments and on

globalization and regionalization (Europe, Africa, Americas, Asia) in higher education

- the perspective on System-Institution-Interaction (e.g. funding of research and innovation)
- the perspective on Institutional Change (e.g. “change management”).

Furthermore, modules on Theoretical Background introduce fundamental issues of higher education management. Another emphasis is given to Transferable Skills (e.g. research methods, presentation skills, languages). With the implementation of a developed curriculum in 2018, students can choose from four different specialization tracks in the second half of the study programme: Research and Innovation, Leadership and Management, Institutional Research, Learning and Teaching.

For more information on MARIHE, please visit the programme’s website: [www.marihe.eu](http://www.marihe.eu).

Krems 2022, University for Continuing Education Krems (Danube University Krems), coordinating institution of MARIHE.

## 2 Understanding University-Society Engagement for Innovation: The role of individual actors in institutionalizing the regenerative medicine research field in University of Tampere (Finland), 1986- 2017

Ijaz Ahmad

### 2.1 Acknowledgement

I am grateful to my supervisor Dr. Yuzhuo Cai who guided my research. I am thankful to Prof. Bernard Leca, from ESSEC Business School (France) for suggesting me a theoretical framework for this study. Furthermore, I am obliged to all the staff members of Higher Education Group (HEG) at University of Tampere, MARIHE consortium, and my internship host (EUA) for providing me a wonderful opportunity to study and work in Europe and Asia's best institutions.

**Key words:** Institutional entrepreneurship, human agency, structure, regenerative medicine, university-society engagement, internal conversation.

### 2.2 Introduction

Worldwide higher education is going through massive reforms. Mostly these reforms are driven by the massification of higher education, the emergence of the knowledge economy, worldwide financial crises, budget cuts in education due to financial crises and spread of neo-liberal ideologies (Torres, 2011). Neo-liberal ideology proposes a minimum role of the government in education and see the purpose of higher education as the development of human capital only which is essential for economy (Friedman, 1955). These reforms have defined universities as engine of economic growth only and are driven by priorities set by business and industry. Van Vught (2009) has noted that knowledge is now considered as a strategic factor of production. Knowledge when transformed into innovation can create competitive advantage of a country and region. In the knowledge economy, higher education



and research are important arenas for knowledge production and innovation. Thus, universities are now considered as important players in combating the economic crises, promoting growth, and developing highly skilled human capital (Van Vught, 2009). As the expectations are changing, universities have to rethink their mission, internal processes, and their role and impact on economy and society. In many European countries, including Finland, societal engagement has now become part of universities' mission alongside teaching and research.

However, societal engagement, collaboration with businesses and industry, and knowledge transfer are challenging goals for many universities because these goals require universities to be involved more in applied research, which is often in conflict with universities' aspirations to become globally competitive. Governments are playing their role for promoting an institutional change in. But the role academics is also important.

## 2.3 Problem Statement

In complex and oftentimes conflicting institutions, actors play important roles. Although they cannot be considered as fully autonomous, they are also not blind followers of the institutions. On the one hand their actions are conditioned by the institutions, while on the other hand, they also construct, transform, and change the institutions (Sotarauta, 2016, p.7). Scott (2013) has counted human agency as important determinant in the construction of new institutions or any change in the existing institutions. He has defined human agency as “an actor's ability to have some effect on the social world—altering the rules, relational ties, or distribution of resources” (p.94). DiMaggio (1988) in his seminal work identified the role of individual actors in the transformation and change of the institutions (Battilana, Leca & Boxenbaum, 2009). Individual or organizational actors who envision and implement a divergent change in an institution are called as *institutional entrepreneurs*.

Sotarauta (2016, p.1) has argued that the lack of focus on “agency, intention, and interest leaves regional innovation studies and studies focusing on knowledge dynamics at an overly abstract level. There is a need to anchor a role for agency in institutionally oriented regional innovation studies (in which universities can be important players in the development), and thus to reach beyond snapshots of top-down institutions, and to produce a more nuanced view on institutions bottom up”. Similarly, Leca, Battilana and Boxenbaum (2008) in their

comprehensive review of literature on institutional entrepreneurship have noted that studies of individuals acting as institutional entrepreneurs are needed. Hodgson (2007, p.3) has argued that “very few social scientists would deny the role of individual intentions in the explanation of social phenomena”. According to Archer (2000) understanding commitments, emotions and passions means studying human agency (Gonzales, 2015). Thus, understanding academics’ agency is important for studying universities’ engagement with industry and society.

For this thesis, a case study of emergence of *regenerative medicine research field* in Tampere (Finland) from 1986-2017 is chosen to investigate the role individual researchers played in promoting and institutionalizing the new research field. The new field was a divergent change in the regional innovative system in general and the University of Tampere in particular because it required a different institutional logic. Since the beginning, the researchers in the University of Tampere were focused on academic excellence (Sotarauta & Mustikkamäki, 2015, p.349). While the new field is basically an applied research field which required extensive linkage with the practitioners. Consequently, exponents of the new field faced many challenges, and its institutionalization required many changes in the regulatory, normative, and cultural-cognitive pillars of the University and of the regional innovation system, if the institutional model of Scott (2013) is used for defining institutions.

## 2.4 The Purpose Statement & Research Question

The purpose of this organizational level case study is to understand institutionalization of regenerative medicine research field in Tampere as a bottom-up process in which the role of individual academics was of key interest. This study is driven by the following central question:

How did some academics play a key role in introducing and institutionalizing the regenerative medicine research field in the University of Tampere from 1986 to 2017?

This study is, in fact, addressing the famous philosophical debate of human agency versus structure. Following are sub questions:

How did the regenerative medicine research field emerge in Tampere, 1986-2017?

What were the institutional structures which were constraining the choices (human agency) of the academics trying to institutionalize regenerative medicine field in Tampere?

What were the institutional factors which were enabling the choices (human agency) of the

academics trying to institutionalize regenerative medicine field in Tampere?

What were the motivations (rational choice, commitment, identity, passion, emotion etc.) of the key academics in promoting and institutionalizing the new field?

How actors' projective orientation, vision and confidence, internal conversation, foreign work experience, and position helped them to navigate the social structures for institutionalizing the regenerative medicine research field in Tampere?

What were the strategies which the key actors adopted for promoting and institutionalizing the new research field?

To what extent regenerative medicine research field has been institutionalized in Tampere?

## 2.5 Significance of the Study

As higher education sector is going through massive transition worldwide, many of the changes being introduced fall in the category of a divergent change. For the successful implementation of these changes, it is not only required to develop meso and macro level strategies and policies (top-down processes), but also important to understand how the individual academics, managers, or Rectors make their personal choices and strategies to play an effective role in introducing and institutionalizing the change (the bottom-up processes). Similarly, it is also important to understand faculty's response to the divergent changes. Sotarauta (2016) has argued that the innovation studies have mainly focused mainly on institutions on meso and macro level, proposed bottom-up studies focusing on human agency can "change our view on what institutions actually are and what not". It can also add to our understanding on the impact of institutions.

## 2.6 Research Methodology

For this thesis, case study is chosen as methodology. As the purpose of this thesis was to study a divergent change in University of Tampere, case study was an ideal research methodology for this research. Using the classification developed by Stake (1995) based on the *intent* of a case study, it is an *instrumental case study*, because intent of this study was to investigate the role of human agency in the institutionalization process of a new field of medical research.

The unit of analysis is the new field of regenerative medicine research in University of

Tampere. But within this unit of analysis (or case) there are many embedded cases of individual actors. In terms of time, this case study has covered the time period from 1986 to 2017 and in terms of place, it is located in Tampere (Finland) (bounding the case).

Based on the qualitative data, a quantitative questionnaire (responses based on Likert scale) was also developed for collecting more responses and to validate the qualitative findings. Participants were selected using snow-ball sampling techniques. From April to June, total twelve people were interviewed who have been involved in teaching, research, and management. In addition to the key actors, some academics were interviewed to validate the roles played by the other academics. Average length of an interview was between 60-70 minutes. All the interviews were transcribed and were analysed using trial version of NVivo 11.

The case was written in chronological order. Yin (1989, p.189) has noted that for explanatory case studies, chronological structure is a good option because it let the reader to evaluate a causal relationship, if the case writer has presumed one. Yin (1989, p.196-7) has noted multiple benefits of disclosing the identities of the participants of a case. On the basis of those benefits, this researcher chose to disclose the identities. Furthermore, some of the key actors had given permission to disclose their names. In the first phase of the case (1986-2003), amongst many actors who played important role, only two actors, namely Timo Ylikomi and Pertti Törmälä have been discussed. In the second phase (2003-2011), Riitta Seppänen was an important actor, but she could not be reached for the interview. In the third phase (2011-2017), Hannu Hanhijarvi was an important actor and the leader of BioMediTech. In the second and third phase there were many other actors who have been discussed briefly, but it was not possible to conduct interviews of all the actors due limitation of time.

## 2.7 Validity

Four strategies are used to enhance the accuracy or validity of the finding and analysis of this thesis.

1. *Triangulation*: The data was taken from multiple sources, including semi-structured interviews and qualitative data taken from published reports and articles (both scholarly and generalist) about the milestone and participants involved in the case study.

Furthermore, a quantitative survey, which was developed on the basis of qualitative data collected in the initial phase of the study, was also conducted. The survey was developed online, and the link was sent to various researchers through email. The researchers were given various reminders through email and telephone calls. The response rate of the survey was 87.5%.

2. *Peer review or de-briefing*: Regular thesis seminars in the University, meetings with the thesis supervisor and other scholars, and frequent discussion with some peers gave the researcher the opportunity to reflect on the analysis.
3. *Member checking*: For member checking, the part of manuscript to each key actor was sent to him/her for validity of facts and interpretation of the data. Their feedback was then incorporated in the final manuscript.
4. *Rich, thick description of the setting*: Sufficient details about the concept of regenerative medicine, various events, important milestones, and the actors (individuals and organizations) involved in promoting the idea of regenerative medicine research in Tampere are given. Moreover, the case description has extensive quotes of the interviewees, including their gestures during the interviews.

## 2.8 Reliability

For ensuring reliability of this research, all the interviews were recorded using a good audio recorder and was then transcribed. It was further ensured to record the interviewees gestures, verbal pauses, and facial expression at various juncture during the interview. The data were analysed using a trial version of NVivo 11, a qualitative data analysis software by QSR International. The gestures and the body language of the interviewees have also been indicated wherever their quotes are given in the description of the case, given in the next chapter.

## 2.9 Key Findings

Emergence of regenerative medicine research field in University of Tampere (UTA) has marked the beginning of new collaborations within academia and between academia (between UTA and TUT), hospitals, regional government, development agencies, and R & D organizations in Tampere. In this study, the role of four actors has been identified at various stages of emergence and institutionalization process of regenerative medicine research field in UTA. As their role was pivotal in the institutional change, these actors can be called as

*institutional entrepreneurs.*

While the early institutionalists have maintained that institutions determine the human actions, Delbridge and Edwards (2013) have argued that institutions have the power to constrain or enable the actions of agents, the impact of logic or institutions is dependent upon the actors who “variously conceive of and pursue their particular projects”. The effect of institutions is contingent upon agents personal characteristics, their personal projects, and their relationship with the institutions. Through personal characteristics and their relationship with the institutions, actors in the same setting conceive different projects. Some of these projects are geared towards change while other support status-quo. Thus, institutions cannot have deterministic effect on agents. Amongst the personal level characteristics, actor’s motivation (for instance, emotion, passion, and commitments), their orientation towards future, hope, confidence in their projects, and internal conversation play great role in building their capacity to introduce and institutionalize a change. In bringing the change, they are not merely at the institutional constraints and enablements, but actively exercise their agency.

In this case study, the role of four academics (Professor Pertti Törmälä, Professor Timo Ylikomi, Riitta Seppänen, and Hannu Hanhijarvi) have been identified. While other two academics, Professor Pertti Törmälä and Professor Timo Ylikomi, played their key role in the first phase (1999-2003) without having formal positions in their universities. The other two of the academics started playing their role in the second (2003-2011) and third (2011-17) phases for the promotion and institutionalization of regenerative medicine, after they got formal positions in University of Tampere. This case study highlights that institutions can truly enable or constrain behavior, or can change aspirations, but that does not mean that institutions “directly, entirely, or uniformly determine individual aspirations”, as Hodgson (2006, p.7) has argued. Pertti Törmälä is retired professor of Technical University of Tampere (TUT). In 1986, he along with Surgeon Pentti Rokkanen developed world’s first bio-absorbable screw for healing bone fractures. Since then, he continued his inventions and developed many similar products based on biomaterials. Professor Törmälä became an entrepreneur in his subsequent professional career. Although the field of regenerative medicine had emerged from US, he learnt about the new field through his project work in Tel Aviv University. He found many new possibilities of business in the emerging field which were not possible using passive biomaterials which he had been using for many years. He started promoted the new research idea in Tampere and influenced many people including people in UTA.

Timo Ylikomi is as professor from University of Tampere who was working on hormone research. After reading two classic articles on cell & tissue engineering and stem cell published in Science Magazine (1993) and Tissue Engineering (2001) respectively, he became passionate about the emerging research field. He looked many new opportunities for society, the university and Tampere region in the emerging research fields. Although he had no formal social or administrative position in Tampere, he started promoting the field of regenerative medicine research. For him establishing the new research fields in Tampere was continuation of a story of success which was started by Pentti Rokkanen and Professor Pertti Törmälä. Törmälä and Ylikomi had different motivations but promoted the idea of establishing regenerative medicine research field in the two universities and in the whole Tampere region, because the new field required collaboration between various organizations. With their strenuous lobbying efforts, many people from Tampere Hospital, development agencies, university administrators, entrepreneurs, and academics started to realize the importance of the proposed field. Gradually, people from the various organizations started to jointly discuss the possibilities. As a result, a Steering Group was made in 2003. The group was comprised of people from the three universities of Tampere (UTA, TUT, and TAMK), Tampere University Hospital, Ministry of Health, Coxa, City of Tampere, and Tampere Hospital District. The same year, the Group head-hunted a maxillofacial surgeon, Riita Seppänen, who was working in Helsinki. She had an entrepreneurial mind and was an eloquent speaker who wanted to develop products on the basis of new research ideas. In 2004, a cross-disciplinary research institute, called Regea Institute of Regenerative Medicine, was jointly established by UTA and TUT at the Kaupi campus of UTA. The institute got support from the regional development agencies and Tampere Hospital District for building a clean room facility and a tissue bank. The year 2007 was very important for the researchers at Regea, because in a groundbreaking surgery, they transplanted the upper jaw of a patient who had lost his upper jaw due to cancer. The upper jaw was developed using stem cell taken from the fatty tissues of the patients. In spite of great achievements, researchers working at Regea stayed marginalized in UTA. There was a lot of skepticism about the new research field and the researcher faced low institutional support, little basic funding, conflicting demands from their universities and from funding agencies on whose support they were dependent for their survival. Seppänen had connections in scientific community, knew the art of persuading, and had very strong motivation to promote the new research field, however, she could not get the required support from the university.

In 2011, Regea was merged with another research institute of UTA called Institute of Medical Technology (IMT). IMT was a big institute and was highly focused on basic research. It had strong support from UTA. Hannu Hanhijarvi became the Dean of the resulting institute, called BioMediTech. Hanhijarvi was pharmacologist who started his career in academia but spent most of his professional career in leading R & D department of Finnish pharmaceutical companies and with venture capitals. With his diverse background in industry and business, he had an entrepreneurial mind and a strong leadership style. He had full support of the Rectors of the two universities in Tampere and could persuade the funding agencies due to his, network, clear mission and open reporting policies. As a result, he was successful in providing financial and administrative support to the research groups working on regenerative medicines, which were marginalized so far. Hanhijarvi left BMT in January 2017, but he played a key role in changing the focus of the researcher from basic research to both basic and applied research. On January 01, 2018, the consortium of the six research groups (three from UTA and three from TUT) working on regenerative medicine got Center of Excellence award from Academy of Finland. This award enhanced their prestige within and outside the academic community, on the one hand, and entitled them to receive Academy's financial support for the next eight years, on the other hand. The new field of regenerative medicine research has been institutionalized in Tampere to a great extent.

In conclusion, in this case four institutional entrepreneurs have been identified: Pertti Törmälä, Timo Ylikomi, Riitta Seppänen, and Hannu Hanhijarvi. In Tampere many people who know about regenerative medicine research field, they would name Seppänen and Hanhijarvi as the key players in institutionalization process of the new field. But few people know about the role of Pertti Törmälä and Timo Ylikomi. Seppänen and Hanhijarvi played their role due to their personal qualities and cross-disciplinary work experience, on the one hand, and due to their organizational positions on the other hand. Ylikomi was just an academic who had not even tenured position in UTA. However, Törmälä due to his vision and motivation to exploit new opportunities and Ylikomi due to his passion for the new research field, his societal commitment, and his vision played key role in the beginning when the new field seemed a science fiction for the academic super stars of UTA and TUT with whom Ylikomi and Törmälä were dealing with. Both Törmälä and Ylikomi had never worked in cell and tissue research field before or after the field started to emerge in Tampere, but they had scientific hunch that the new ideas are doable and have great potential to not only societal problems but



also have great business potential. Once Regea Institute of Regenerative Medicine, a formal organization focused on the new research field, was established the role of Törmälä and Ylikomi gradually diminished and the new actor, Seppänen took the lead henceforth. In philosophical sense, emergence and institutionalization of regenerative medicine research field in University of Tampere is an example of non-deterministic development. The new field would have remained a distant dream without the key academics identified above who were not merely dependent upon institutional enablements, but they actively exercised their agency through their vision, passion, commitments, and effective strategies against the institutional constraints (structures).

## 2.10 Further Research

Based on the quantitative survey, which was conducted as part of this thesis, it is noted that many funding agencies have started to focus on innovation and commercialization as their main objective in research funding. On the other hand, universities want high impact publications to elevate in ranking. So, there seems an apparent contradiction. However, it is important to see how faculty exercise their agency to deal with this apparent contradiction. In further research, it can be investigated how organizational values change when the focus of an organization changes from basic to strategic or applied research. Finally, it is important to conduct a detailed study on the effectiveness of academics who have foreign work experience in promoting university's societal engagements. A similar study should also be conducted on academics and managers of higher education who have previously worked in different sectors of economy to understand their effectiveness in developing societal engagement. The proposed studies will help the Finnish universities to realize their so-called 3<sup>rd</sup> mission.

## 2.11 References

Archer, M. S. (2000). Home economicus, Homo sociologicus and Homo sentiens. In M. Archer &

J. Tritter (Eds.), *Rational Choice Theory: Resisting Colonization* (pp. 36-56). London: Routledge.

Battilana, J., Leca, B., & Boxenbaum, E. (2009). 2 how actors change institutions: towards a

theory of institutional entrepreneurship. *The academy of management annals*, 3(1), 65-107.

Delbridge, R., & Edwards, T. (2013). Inhabiting institutions: Critical realist refinements to understanding institutional complexity and change. *Organization Studies*, 34(7), 927-947.

DiMaggio, P. J. (1988). Interest and agency in institutional theory. *Institutional patterns and organizations: Culture and environment*, 1, 3-22.

Friedman, M. (1955). *The role of government in education*: Rutgers University Press.

Gonzales, L. D. (2015). Faculty agency in striving university contexts: mundane yet powerful acts of agency. *British Educational Research Journal*, 41(2), 303-323.

Hodgson, G. M. (2006). What Are Institutions? *Journal of Economic Issues*, 40(1), 1-25.  
doi:10.1080/00213624.2006.11506879

Hodgson, G. M. (2007). Institutions and individuals: interaction and evolution. *Organization studies*, 28(1), 95-116.

Leca, B., Battilana, J., & Boxenbaum, E. (2008) Agency and institutions: A review of institutional entrepreneurship. *Harvard Business School Working Paper*: Harvard Business School Cambridge, MA.

Scott, W. R. (2013). *Institutions and organizations: Ideas, interests, and identities*: Sage Publications.

Sotarauta, M. (2016). An actor-centric bottom-up view of institutions: Combinatorial knowledge dynamics through the eyes of institutional entrepreneurs and institutional navigators. *Environment and Planning C: Government and Policy*, 0263774X16664906.

Sotarauta, M., & Mustikkamäki, N. (2015). Institutional entrepreneurship, power, and knowledge in innovation systems: institutionalization of regenerative medicine in Tampere, Finland. *Environment and Planning C: Government and Policy*, 33(2), 342-357.

Stake, R. E. (1995). *The art of case study research*: Sage.

Torres, C. A. (2011). Public universities and the neoliberal common sense: Seven iconoclastic theses. *International Studies in Sociology of Education*, 21(3), 177-197.

Van Vught, F. (2009). The EU innovation agenda: Challenges for European higher education and research. *Higher Education Management and Policy*, 21(2), 1-22.

Yin, R. K. (1989). *Case study research: Design and methods*, revised edition. *Applied Social Research Methods Series*, 5.

### 3 Conceptualization and Interventions of Social Inclusion: in Higher Education Institutions

Yuritzi G. Becerra Zamora

#### 3.1 Background

The demand for inclusive universities and widening participation in higher education (HE) has grown considerably in recent decades, despite the shifting role of HE in many parts of the world, from a “national and cultural” function to an “economic rationale” (Huisman & Van der Wende, 2004). This new “economic rationale” in HE refers to many governments across the globe striving for international competitiveness while they are reducing the budget for education, research, and development (see Blyth, 2013). Such changing priorities and budget cuts from the government are forcing higher education institutions (HEIs) to increase their productivity, expand their sources of income, and reduce costs at the expense of neglecting their social and political role in societies to a greater or lesser extent (for some studies on these trends in Latin America, see Torres & Schugurensky, 2002; in OECD countries, Douglass, 2010; globally, Tilak, 2005). In that context, HEIs around the globe share the challenge of promoting social inclusion and equity, while maintaining efficiency and quality (Gupta, 2006). The contrast of these values creates an interesting context for the social inclusion policies in HEIs, that are known to “vary enormously” (Hughes, 2015 p. 303) from institution to institution.

While a fair number of studies on social inclusion in HE at national level have been developed in many historical and geographical contexts in the last forty years; at the institutional and regional level, the topic has gone under examined for decades (Kezar, 2010). Therefore, little is known about the challenges and the impact of institutions and their policies on the access, participation, and success of students that belong to traditionally underserved groups.

For this study, I conducted a literature review that corroborated Kezar’s (2010) observation that the number of existing studies on social inclusion in HE at the institutional and the

individual level is limited. Moreover, I found out that most of the studies at these levels possess three common characteristics:

They concentrate in certain geographical areas, such as the USA and Canada (e.g., Morfin, Perez, Parker, Lynn & Arrona, 2006; Rankin, 2005), Australia and New Zealand (e.g. Claiborne, Cornforth, Gibson & Smith, 2011; Devlin, 2009), or Europe (e.g. Deem & Morley, 2006; Crozier, Reay, Clayton, Colliander & Grinstead, 2008), which limits the scientific understanding of social inclusion in HEIs to the Anglo-European context<sup>1</sup>;

they focus on only one dimension of social exclusion, either economic status (e.g., Perna, Lundy-Wagner, Yee, Brill, & Tadal, 2010; Crozier, Reay, Clayton, Colliander & Grinstead, 2008), gender or sexual minorities (e.g., Case, Kanenberg & Tittsworth, 2012; Ellis, 2009), disability (e.g. Mutanga & Walker, 2015; Claiborne, Cornforth, Gibson & Smith, 2011), or ethnicity (e.g. Hurtado, Inkelas, Briggs & Rhee, 1997; Rankin & Reason, 2005). By assuming a one-dimensional perspective, the researchers might make the mistake of erasing the relations between different dimensions of social exclusion and homogenizing the targeted social group; finally, they utilize theoretical and conceptual frameworks that are specific to Western developed countries (e.g., critical race theory, feminist critical theory, post-structuralist approaches, etc.) and have a limited explanatory power when trying to understand social inclusion in other contexts.

As a response to this research gap, this study (1) attempts to widen the understanding of social inclusion in HEIs in other cultural, economic, and historical contexts -as opposed to Western developed countries- by exploring the case of the Autonomous University of Queretaro (UAQ) in Mexico, as an example of a postcolonial context. With the concept of

---

<sup>1</sup> A limitation of this finding is that the literature review that led to it was conducted only in English, Spanish and Portuguese. However, a great number of articles from all over the world are published in English each year, and it was still almost impossible to find any research done on institutional policies or actions towards social inclusion in HEIs outside of the mentioned countries. It is also worth noting that, in Spanish, research on the topic was almost inexistent, despite the fact that more of 20 countries in the world use Spanish in their academic production.

intersectionality (Crenshaw, 1989) in mind, this study (2) does not look at dimensions of social exclusion as independent but rather focuses on the relationships that result from the interconnections of them. Therefore, the so-called *policies for inclusion* that this study explores, include a wide range of university's activities that contribute to social inclusion in many dimensions. Further in this chapter, I present the definition and delimitation of the concept of policy utilized in this study. Finally, the study (3) takes a critical perspective to construct an overview of the different conceptualizations of social inclusion of members of the university community and analyse the institutional policies.

The general aim of this study is to shine new light on the social inclusion experiences of HEIs in postcolonial contexts, and to create a context-sensitive model for analysing the conceptualization and the institutional policies for social inclusion in HEIs.

With the model designed for this study, the following research questions are answered:  
How is social inclusion conceptualized in the Autonomous University of Queretaro?  
How does that conceptualization compare to the institutional policies for social inclusion of the Autonomous University of Queretaro?

The findings of this study contribute to widening the understanding of social inclusion in HEIs mainly in two senses, namely, (1) through the development of a context sensitive model that could be utilized in other HEIs as a tool to compare policy and practice of social inclusion; and (2) through the exploration of a case study that sets an example of the misses, merits, and peculiarities of promoting social inclusion in a university in a postcolonial country.

The analytical framework is a meta-research model that discusses the relations between ideologies, discourses, levels of institutional transformation, and interventions available in the academic literature on social inclusion policy and practice in HE (Figure 1). I constructed the model to be able to operationalize the conceptualization of social inclusion in the case university and to compare that conceptualization to the policies for social inclusion in a systematic way. It is a first attempt to develop a context-sensitive model that enables the construction of a social inclusion concept in a HEI and its relationship with the respective policies at place. The model was built using Gidley's (in Gidley, Hampson, Wheeler &

Bereded-Samuel, 2010) figure of *Spectrum of Ideologies Underlying Social Inclusion Theory and Policy*, and figure of *Access, Participation and Success in Social Inclusion Interventions*, as well as Palomar Verea's (2005) institutional levels of transformation. In addition to those sources, the model was complemented with my observations from the corresponding literature review on the phenomenon of question, social inclusion in HE.

The model that I have constructed consists of two sections. First, the model can be used to map the understandings and experiences of social inclusion in a HEI, through the discourses of members of the university community, namely, students, faculty members and administrators. This first use of the model constitute the *conceptualization* of social inclusion in the case university. Second, the model can also be a tool to map the current policies of the HEI towards social inclusion. The policies might include programs, actions, and other events that respond to the diversity in the institution. In the model, these actions are called HE *interventions*.

Figure 1. Conceptualizations and interventions of social inclusion in higher education.

<div> <div>Conceptualization</div> <div>Interventions</div> </div>				
General ideologies	Focus	Discourses around social inclusion	Institutional policies	Levels of transformation
Neoliberalism	Access	Equitable access, rational choice, meritocracy, utilitarianism	Scholarships and other financing opportunities, inclusive infrastructure, inclusive pedagogical resources, remedial courses	Demographic
Social Justice	Participation	Social responsibility, engagement and belonging, passive no-discrimination	Mentoring and follow-up activities, learning networks, awareness campaigns, psychosocial support, student experience and support activities	Academic & institutional
Social transformation	Participation & success	Human potential, lifelong learning potential, social reproduction, local and regional impact	Institutional transformation, academic mainstreaming, community engagement, strong student involvement in decision-making	Institutional & epistemological

Source: Author. Based on Gidley et al. (2010) and Palomar Verea (2005).

In general, the model is the result of the integration of both of Gidley's models with four new additional elements. The changes include, first, the definition of the key concepts of social inclusion, namely access, participation, and success; second, the addition of new social inclusion interventions at the institutional level; third, the integration of Palomar Verea's (2005) four levels of transformation to the model; and, finally, the development of the elements of the third general ideology, social transformation.

The model allows for an observation of the matches and mismatches between HEI communities' experiences and conceptualizations of social inclusion with the relevant policies at place in the HEI. However, this model does not contain all the range of discourses around social inclusion, neither the full array of institutional interventions. In that sense, the model is an organic guide to categorize some of the discourses and the interventions of social inclusion



in HEIs. By organic, I refer to the possibility of constant adaptation by new social inclusion research and practice.

### 3.2 Methodology

For this study, social constructionism forms the philosophical basis to understand reality and social phenomena. In turn, postcolonial theory serves as a perspective through which the nuances of the context are explored in depth.

The study is a qualitative research and an exploratory case study of a single HEI, the Autonomous University of Queretaro in Mexico.

To selection of the case university responds to the following criteria:

*First*, the university had to be a public university, since those are the universities where social inclusion interventions have a bigger impact in the community in general, as opposed to private universities where mostly the elite can benefit from inclusion policies.

*Second*, the university had to be a comprehensive university, so that the field of study and level of specialization of the university were not relevant variables.

*Third*, the social inclusion work at the university had to be on early stages, so that the findings from this research were of use to the improvement of the initiatives.

*Fourth*, the university had to agree to the study being conducted and had certain interest in considering the findings of this research for further development of the initiatives.

The Autonomous University of Queretaro (UAQ), in central Mexico, proved to be a great candidate. First, the university is a public state university with a medium size population of students compared to other universities in the country. In the last few years, it has been improving their position in rankings and gaining relevance in the region. The university has a wide diversity of programs and students, and it has just recently started to develop programs aiming at the inclusion of certain groups of students. Their programs for social inclusion have been launched only a few years back and are battling with the hurdles of settling in.

Additionally, the university has campuses in Indigenous regions of the state and is launching programs aiming at local development and production. Finally, my familiarity with the institution was of importance when selecting the university. My roles as a student for seven years, an administration intern for almost two years, and a lecturer for six months gave me understanding of the complexity of the university. During my active years in the university, I became familiar with the culture of the institution. My connection with the university made it

possible for me to contact the administrators and make sure that they were interested in the research and willing to consider the findings of this study.

The main source of data of this study consists of interviews with members of the university community. During the period between January 5 and 13, 2017, I visited UAQ in Mexico and conducted eight semi-structured in-depth interviews with students, university administrators and faculty members of the university. All the interviewees are related to social inclusion policies in one way or another: they are members of communities targeted by the policies, they are directly involved in the programs for social inclusion, they are high-ranking administrators of the university, or some combination of those. The duration of the interviews varies from 30 minutes to 1 hour and 25 minutes. Seven of the eight interviews were recorded on audio files and later transcribed, in addition to my notes during the interviews. The interviewee of the only unrecorded interview had a hearing impairment, and their voice was almost undetectable to the audio recorder. With previous agreement with this interviewee, I took extensive notes during the interview and supported my questions with written material. All the interviews were conducted in Spanish. I then transcribed the interviews and translated them to English.

Because of the different roles of every interviewee and the specific information that I could get from each of them, I had to develop several interview guides. I used Palomar Verea's (2005) levels of institutional transformation, namely demographic, academic, institutional and epistemological levels, as a general guide for the design of the questions. I deliberately avoided the use of the three general ideologies and the discourses of social inclusion (see Figure 1) in the questions. This omission was made with the purpose of not forcing interviewees' responses into the concepts and notions of the analytical framework, since I was interested in seeing if the responses of the interviewees in fact related to those concepts in the model.

Additionally, information for this study was supported by policy-related documents, namely the mission and visions statements of the university, and the fourth (2015) and fifth (2016) annual administration reports.

### 3.3 Key findings

When using the model to analyse, organize and contrast the results, I have found that the discourses used to conceptualize social inclusion in the case study university are underpinned by the three general ideologies proposed in the model. However, and despite the limited amount of data, some patterns were observed. A summary of the research findings, in the form of the analytical framework, can be found in Figure 2.

Aligned with the neoliberal ideologies, the most common discourses were equitable access, meritocracy and utilitarianism. These discourses were mostly used by high-ranking administrators. The only time that a student used the meritocracy discourse, they use it discuss social exclusion rather than inclusion. The interventions related to this methodology were abundant and, as described by the interviewees, introduced with no major resistance.

Regarding the social justice ideology, the main discourses used to describe social inclusion were those of social responsibility, engagement and belonging, and passive no-discrimination. These discourses were mainly used by project administrators and students. Interventions underpinned by the social justice ideology included were abundant and only some resistance, especially from faculty members, was reported.

Finally, regarding the social transformation ideology, the most common discourses used when discussing social inclusion were those of human potential and social reproduction. These discourses were found in the words of most of the interviews, including high-ranking administrators, project administrators and students. Interventions aligned with the social transformation ideology were not abundant compared to the other ideologies and were introduced with several resistances from certain members of the university community.

While there are still many questions left unanswered regarding HEIs' experiences with social inclusion, especially those in postcolonial contexts, I have aimed in this study to shine new light on the social inclusion practices of one HEI in that context. To do so, I developed a model which enables the exploration of both the policies and the practices of social inclusion in the case study university, and which can eventually be utilized to analyse the experiences of other HEIs. With the help of the model, I have answered the research questions that guided

this study. For the first question, how social inclusion is conceptualized in the case university, I identified some of the discourses used by members of the university community to conceptualize social inclusion, as well as some of the policies for social inclusion in the university. To answer the second question, how the conceptualization compares to the policies for social inclusion in the case university, the model has also allowed me to compare these conceptualizations and the policies with regard of the main ideologies that underpin them, the focus that they possess, and the potential spaces for transformations that they enable.

Figure 2. Summary of the findings.

<div> <div>Conceptualization</div> <div>Interventions</div> </div>			
Ideology, focus and level of transformation	Discourses around social inclusion according to the data		Institutional policies found
NEOLIBERAL IDEOLOGY, focus on access and the demographic level	Main discourses	Equitable access, meritocracy, utilitarianism	<ul style="list-style-type: none"> <li>-Scholarships and fee exemptions</li> <li>-Inclusive infrastructure</li> <li>-Library for students with visual disability</li> <li>-Interpreters of sign language</li> <li>-Remedial courses</li> </ul>
	Roles of interviewees	Mostly high-ranking administrators	
SOCIAL JUSTICE IDEOLOGY, focus on participation, and on the academic and institutional levels	Main discourses	Social responsibility, engagement and belonging, passive no-discrimination	<ul style="list-style-type: none"> <li>-Mentoring and follow-up activities</li> <li>-Academic support</li> <li>-Awareness campaigns for administrators and faculty members</li> <li>-Psychosocial support</li> <li>-Day care system</li> <li>-Workshops and seminars</li> </ul>
	Roles of interviewees	Mostly project administrators and students	
SOCIAL TRANSFORMATION IDEOLOGY, focus on participation and success, and on the institutional and epistemological levels	Main discourses	Human potential, social reproduction	<ul style="list-style-type: none"> <li>-Institutional transformation and some resistance to it, as well as administrative instability</li> <li>-Academic mainstreaming</li> <li>-Strong student involvement in decision-making in social inclusion programs, but no evidence of strong student involvement in general decision-making</li> </ul>
	Roles of interviewees	Most of the interviewees	

As discussed previously, Gidley's figures (Gidley, et al., 2010) that serve as base for the model designed for this study (Figure 3) and the model itself are the result of systematic observations of how social inclusion in HE is studied and discussed in the academic literature. In that sense, all the discourses and interventions that I found in the data and that were connected to the model are examples of linkages between the practices of social inclusion in a

university and the previous academic discussions. The discourses of equitable access, meritocracy, and utilitarianism that I identified in the data, for example, were previously used by Clancy & Goastellec (2007), Perez-Castro (2014), Ahmed (2012), or Torres (2011), as discussed in the previous chapter. However, Gidley's figures and the model designed for this study are different to those studies because they are not mere academic reflections, but meta-academic reflections. In other words, Gidley's figures and the model I developed for this study are academic observations on other academic observations. Gidley's figures and the model presented in this study provide answers to the questions: how is social inclusion discussed in the academic literature? Which ideologies underpin the perspectives and frameworks that researchers use when studying social inclusion? What is the focus of the academic discussions around social inclusion? And what interventions are linked to social inclusion in HE according to the literature?

The natural inquiry becomes, then, how this study and the model that I designed for it contribute to the academic discussion of social inclusion and in which ways that contribution is different from that of Gidley et al. (2010), for example. As I mentioned before, both Gidley's figures and the model I designed are meta-academic observations, which means they are highly theoretical. The main risk of relying highly on theory is that the connections with practice tend to be difficult to make. As discussed in Chapter 3, Gidley's figures lightly engage with the practical sides of social inclusion but focus mainly on the theoretical sides. It was not Gidley's intention to apply the model to a single HEI, but to provide an overview of the academic discussion on social inclusion in HE. In contrast, the model that I designed had the focus on applicability from the beginning. Relying heavily on Gidley's theoretical base allowed me to take the focus back to the practices of social inclusion in HEIs. I added practical elements to the model, such as Palomar Verea's (2005) levels of transformation, as well as additional institutional interventions from the literature reviews that I conducted. I made sure that the model was context-sensitive by including interventions taken from examples of HEIs in non-Western countries, and also by not assuming a definition of social inclusion, but rather providing a tool to find it from the discourses of members of the university community. Finally, by using the model to analyse the experiences with social inclusion of a HEI, I provided one example of the connection between theory on social inclusion in HE and the practice of social inclusion in HEIs.

### 3.4 Recommendations for future research

The implications of these findings related to the model in the academic discussion of social inclusion in HE are highly relevant. The model has proven to be a useful tool in the analysis of the policy and practice of social inclusion in HEIs. However, the model showed one main limitation. Rather than illustrating specific points of action to develop better and more meaningful policies of social inclusion, it provides insights regarding the experiences of university community members with social inclusion as a phenomenon and the practices that enable its development. The descriptive nature of the model can enlighten the forms that social inclusion takes in the university and the status of the policies, but to enable meaningful institutional transformation, it perhaps needs to be complemented with another study that takes the understanding of the matches and mismatches of the conceptualizations and the interventions of social inclusion to a deeper level.

In addition to the limitations of the model, I identified one major limitation of the case study. The main limitation of this study is related to the amount of available data. Due to time and distance-related constraints, only eight interviews were conducted for this research. The information provided by the eight interviewees was too limited to provide conclusive results regarding the analysis of the policies of social inclusion in the university, yet it was enough to answer the research questions that guided the study and to provide insights in the utility of the model. Moreover, the findings of this research are not meant to be conclusive, but to provide a first general understanding of the social inclusion phenomenon in the case university.

Considering the limitations of the case study and the model proposed in this paper, a recommendation for a second study with a quantitative method that considers a wider sample of participants and that follows up the findings of this study could be developed as a complement. In that sense, with the present study and the second proposed study, specific practical implications for the case university could be issued, and a methodology for analysing policies of social inclusion in HEIs might develop.

We must develop tools and methods of analysis that involve the experiences and understandings of members of the university community, and which, in that sense, are sensitive to the contexts in which the HEIs develop. Such an analysis must allow for differences of opinion, paradoxes, and even discomfort in its gaze. Only then can we move

forward with the work of developing inclusive universities and better opportunities for all members of society.

### 3.5 References

Ahmed, S. (2012). *On being included: Racism and diversity in institutional life*. Duke University Press.

Blyth, M. (2013). *Austerity: The History of a Dangerous Idea*. New York: Oxford University Press.

Case, K. A., Kanenberg, H., & Tittsworth, J. (2012). Transgender Inclusion in University Nondiscrimination Statements: Challenging Gender-Conforming Privilege through Student Activism. *Journal of Social Issues*, 68(1), 145-161.

Claiborne, L. B., Cornforth, S., Gibson, A., & Smith, A. (2011). Supporting students with impairments in higher education: social inclusion or cold comfort?. *International Journal of Inclusive Education*, 15(5), 513-527.

Clancy, P., & Goastellec, G. (2007). Exploring access and equity in higher education: Policy and performance in a comparative perspective. *Higher Education Quarterly*, 61(2), 136-154.

Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *U. Chi. Legal F.*, 139.

Crozier, G., Reay, D., Clayton, J., Colliander, L., & Grinstead, J. (2008). Different strokes for different folks: diverse students in diverse institutions—experiences of higher education. *Research Papers in Education*, 23(2), 167-177.

Deem, R., & Morley, L. (2006). Diversity in the academy? Staff perceptions of equality policies in six contemporary higher education institutions. *Policy Futures in Education*, 4(2), 185-202.



Devlin, M. (2009). Indigenous higher education student equity: Focusing on what works. *The Australian Journal of Indigenous Education*, 38(01), 1-8.

Douglass, J. A. (2010). Higher education budgets and the global recession: Tracking varied national responses and their consequences. Center for Studies in Higher Education.

Ellis, S. J. (2009). Diversity and inclusivity at university: A survey of the experiences of lesbian, gay, bisexual and trans (LGBT) students in the UK. *Higher Education*, 57(6), 723-739.

Gidley, J. M., Hampson, G. P., Wheeler, L., & Bereded-Samuel, E. (2010). From access to success: An integrated approach to quality higher education informed by social inclusion theory and practice. *Higher Education Policy*, 23(1), 123-147.

Gupta, A. (2006). Affirmative action in higher education in India and the US: A study in contrasts. Center for Studies in Higher Education.

Hughes, K. (2015). The social inclusion meme in higher education: are universities doing enough?. *International Journal of Inclusive Education*, 19(3), 303-313.

Huisman, J., & Van der Wende, M. (2004). The EU and Bologna: are supra-and international initiatives threatening domestic agendas?. *European Journal of Education*, 39(3), 349-357.

Hurtado, S., Inkelas, K. K., Briggs, C., & Rhee, B. S. (1997). Differences in college access and choice among racial/ethnic groups: Identifying continuing barriers. *Research in Higher Education*, 38(1), 43-75.

Kezar, A. (Ed.). (2010). Recognizing and serving low-income students in higher education: An examination of institutional policies, practices, and culture. Routledge.

Morfin, O. J., Perez, V. H., Parker, L., Lynn, M., & Arrona, J. (2006). Hiding the politically obvious: A critical race theory preview of diversity as racial neutrality in higher education. *Educational Policy*, 20(1), 249-270.



Mutanga, O., & Walker, M. (2015). Towards a Disability-inclusive Higher Education Policy through the Capabilities Approach. *Journal of Human Development and Capabilities*, 16(4), 501-517.

Palomar Vereá, C. (2005). La política de género en la educación superior. *La Ventana, revista de estudios de género*, 21, 7-43.

Perez-Castro, J. (2014). Can Mexico Achieve an Inclusive Education? An Analysis of Higher Education Policies of Recent Decades. *American International Journal of Social Science*, 3, 77-84.

Perna, L., Lundy-Wagner, V., Yee, A., Brill, L., & Tadal, T. (2010). Showing them the money: The role of institutional financial aid policies and communication strategies in attracting low-income students. In A. Kezar (Ed.), *Recognizing and Serving Low-Income Students in Higher Education: An examination of institutional policies, practices, and culture* (pp. 72-96). Routledge.

Rankin, S. R., & Reason, R. D. (2005). Differing perceptions: How students of color and White students perceive campus climate for underrepresented groups. *Journal of College Student Development*, 46(1), 43-61.

Rankin, S. R. (2005). Campus climates for sexual minorities. *New Directions for Student Services*, 2005(111), 17-23.

Tilak, J. B. (2005). Global trends in funding higher education. *IAU Horizons*, 11(1), 1-2.

Torres, C. A., & Schugurensky, D. (2002). The political economy of higher education in the era of neoliberal globalization: Latin America in comparative perspective. *Higher Education*, 43(4), 429-455.

Torres, C. A. (2011). Public universities and the neoliberal common sense: Seven iconoclastic theses. *International Studies in Sociology of Education*, 21(3), 177-197.

## **4 Entrepreneurial University in Thailand:**

### **A Case Study of King Mongkut's University of Technology Thonburi (KMUTT)**

Thanida Dharmajiva

#### **4.1 Background**

Entrepreneurial university is a type of university which is discussed widely in western countries about its transformed ability to survive changes such as the decrease in state funding and become more self-reliant. Many forefront universities such as Stanford University in the United States, University of Warwick in England, University of Strathclyde in Scotland and University of Twente in the Netherlands are described as an entrepreneurial university (Clark, 2004b). The transformation to be an entrepreneurial university is stimulated by the increasing pressures such as the demands for more specialized graduates, employability, the uncontrollable growth of knowledge, the decrease in state support and the more interest groups in university's activities (Clark, 1998b). Some universities' behaviours such as active seeking for more sources of funding and creating linkages with external organizations are considered as entrepreneurial (Clark, 1998a, 2004a, 2004b, 2015). Such attempt of a university to actively build up capacity for better response to the growing demands exists in Thai higher education. Public funding shortage has incentivized Thai public universities to seek for other sources of income (Intarakumnerd & Schiller, 2009). A number of public research universities in Thailand have been granted autonomy and depended less on government budget, which finally led them to become more entrepreneurial and operate their activities and research that are relevant to industry (Intarakumnerd & Schiller, 2009). The previously mentioned transformation of universities is coherent with the context of entrepreneurial university suggested by Burton Clark that the emergence of knowledge-based economy and society forces universities to provide competent graduates to the labour market and depend less on public budget (Clark, 1998a). Some Thai research universities such as King Mongkut's University of Technology Thonburi (KMUTT), Mahidol university and Chulalongkorn University were claimed to be operated as entrepreneurial universities (Savetpanuvong & Pankasem, 2014; Yamsri, 2016). However, the entrepreneurial university

elements have not been analysed to great extent in prior empirical studies.

The concept of entrepreneurial university is likely to attract lots of attention from Thai policy makers since it has been introduced and accepted in the modern world. It is also seen as a type of university which encompasses and extends the concept of the research university (Etzkowitz, 2013). However, Thai higher education institutions have considered the culture of borrowing ideas and policies from western countries as a country's modernization process (Sae-Lao, 2013). This raises the author's concern about the fitness of entrepreneurial university concept to the context of Thai higher education and the success of its implementation at institution level. Entrepreneurial university should not be only a buzzword to justify the modern movements of a university. A successful entrepreneurial university requires strong practices, the understanding of the concept as well as grounded and widely accepted belief of the model among university stakeholders (Clark, 2004b). Therefore, the author is eager to contribute to the field of Thai higher education by finding out the current state of entrepreneurial university in Thai higher education and analysing the dynamics of the pathway towards entrepreneurial university. In this study, KMUTT is chosen as a case study for two main reasons. First, KMUTT has been the only university which is mentioned in science technology and innovation policy report of UNCTAD as a good example of Thai universities with industrial linkages and various sources of income (UNCTAD, 2015). The various funding channels and the collaborations with external organizations are coherent with some entrepreneurial university elements in its university's behaviours such as "the diversified funding bases" and "the extended periphery" provided by Burton Clark (Clark, 1998a; KMUTT, 2017). Apart from Clark's concepts, KMUTT mission also covers some of the ideas of the first phrase of entrepreneurial university model or "entrepreneurial university one" stated by Etzkowitz that the university is able to determine its strategies and gain its income through different funding channels (Etzkowitz, 2013; KMUTT, 2017). Second, there is no existing empirical study about KMUTT even though the university stands among nine Thai notable research universities. Therefore, the author aims to contribute to Thai higher education by conducting research about KMUTT. This study aims to answer the research question "how has KMUTT been operated as entrepreneurial university?"

The author aims to fulfil the knowledge pool of Thai higher education research by choosing research topic which is related to the current operating trends of universities in Thailand. The

author searched existing research related to “entrepreneurial university in Thailand” online as well as from some Thai universities’ library databases. The result was that the documents and research related to KMUTT entrepreneurship is scarce and mostly conducted in Thai. Most of the existing research in Thai higher education is about Thailand’s obstacles in promoting university-industry linkages. Although a comparative research about research university with a case of Chulalongkorn University (CU) has been done by a Thai scholar Rungfamai (2011), the research reveals the university stakeholders’ perception of research universities in Thailand, with special attention to governance. The researcher mentioned about the entrepreneurship of the university but did not use it as the theme of the research (Rungfamai, 2011). Moreover, there is no research directly conducted about entrepreneurial university and KMUTT in Thailand. This leaves the gap for the author to fulfil and work on research question “How has KMUTT been operated as entrepreneurial university?” Nonetheless, the author is aware that there might be undiscovered channels or sources for existing research about entrepreneurial university. Therefore, the author put more effort into ensuring that the research will be unique, conducted well and meaningful to the field of higher education as much as possible.

## 4.2 Methodology

This study uses qualitative methods to explore and understand how KMUTT has been operated as entrepreneurial university. Qualitative research is a way to discover and interpret how individuals or groups perceive and frame a matter relating to society and mankind (Creswell, 2014). This study makes use of case study research strategy which is seen as one of research strategies commonly used in qualitative research (Stake, 2000). Yin 2003 cited in Kohlbacher that case study is a favourable research strategy for researchers who want to find answers to "how or "why" questions, when the researchers have small control over the case study and the case study investigation emphasizes on the present circumstances of some real-life context (Kohlbacher, 2006). Case study mainly used in evaluation field and should be developed an in- depth analysis of a case (Creswell, 2014). In this study, the author uses KMUTT as a case study. The author collected data and provided in depth analysis of the research by applying the deductive form of qualitative content analysis. A theoretical framework developed by Burton Clark is used to answer the research questions, frame the research focus, and narrow down the range of data collection as well as structure thesis analysis section. The five entrepreneurial university within the analytical framework are developed

from five university case studies which are unique in terms of instill values and the culture development. Clark's five elements of entrepreneurial university concepts are interwoven and influenced by developed ideas and concepts of its university staff through time. This study aims to seek for sufficient and relevant information to analyse entrepreneurial elements. There are two types of data to be collected: primary data and secondary data. Primary data is from interview transcript of twelve interviews and secondary data is from additional documents received from KMUTT. The author contacted the university central administration providing the research questions and asking permission for conducting the study. A research proposal and an interview guide were sent to KMUTT for the university to understand the purpose and the scope of this thesis study. The author follows the theory-guided analysis which is seen as one of the key elements of qualitative content analysis (Kohlbacher, 2006). According to Kohlbacher (2006), the procedure shared the same focus as case study research that the researcher consistently compares theory and data. This method also allows the comparison between the primary data and secondary data collected which ultimately guarantees the quality of the analysis, especially validity. Therefore, the author constantly rechecked the link between theory and data as well as sent a fill in document to the university central office to get university facts such as numbers of collaborating projects and etc.

Semi- structured interview is used as primary data source to collect data based on Clark's analytical framework. This type of interview helps the author accesses the most updated information and explore all possible issues related to the research topic as well as at the same time receives enough data to analyse the case study. Key ideas were extracted from Clark's five descriptive concepts before they were used as a guideline for interview questions design. There were twelve interviews of university top management and academics. All interviews were arranged one on one through Skype phone calls. Each interview took forty minutes to one hour to complete. After interviews, the author transcribed all interviews in Thai and then, translated them into English. The author received an approval from KMUTT to interview a group of KMUTT university policy makers and academics. As mentioned by Creswell (2007), the researcher is required to respect the rights, needs, values and desires of the informants (Creswell & Clark, 2007). In order to protect the rights of the informants, the author gives clear explanation verbally and in print about how the research will be conducted. Any sensitive information which might affect the persons negatively will not be revealed. The name of each interviewee will be omitted, replaced with coding numbers and sorted out without considering the order of their positions e.g., Interviewee one, two and three. Research

validity tells to what extent the research provides accurate results and precise measurement to the research question (Golafshani, 2003). In terms of validity of this research the author used entrepreneurial university concept developed by Burton Clark as the basis of the study to provide a strong frame for the research. The chosen of the theoretical framework was based on strong rationality regarding the fitness to Thai higher education. The author gained deeper understanding of the meaning of the theoretical framework used and provided the key ideas before choosing and collecting data. The author interviewed both university managers as well as academics to avoid bias and bring out the most truthful information from interviewees. Research reliability confirms the consistency of the research results throughout the research (Golafshani, 2003). In terms of the reliability of this research, the author used theory-guided analysis which involved the informants and interviewees to recheck the data collected from KMUTT to assure the correctness and the relevance of the information (Kohlbacher, 2006).

#### 4.3 Key Findings

The analysis of the diversified funding base element proved that KMUTT has increasingly generated income from third stream income such as student tuition fee, external organizations and investments. The restriction in state funding stimulates KMUTT to be active in searching for income from other sources including industry and private sectors. Even though the diversified funding base element is strong in KMUTT, the strengthened steering core element still seems to be in its transitional phrase. This is because there appears to be an imbalance between top, middle and lower-level managements. The university administrative management have been equipped with change-oriented university managers and continuously been reconciled new managerial values among top management. However, the sentiment has not been fully shared within the lower management because of the rapid changes in university policy brought by top management. Therefore, KMUTT still has to empower deans and the head of departments to promote changes in academic departments. The extended periphery element is in the early stage of development. The demand for external support also leads KMUTT to strengthen its collaboration with external organizations as well as establish and extend its outreach administrative units. However, the units still need to be improved to be proactive and interactive in linking academics with external organizations. Ineffective internal communication among units is seen as an obstacle towards the successful extended periphery. The stimulated academic heartland happens to be another element that needs further improvement. KMUTT academics have been involved in central administrative matters and

supported the university in income generating as well as collaborating with external organizations. However, the department level is considered to be the most difficult unit to bring in changes concerning the entrepreneurial mindset. It is challenging for KMUTT top management to implement higher education trends or transitions at faculty and department level since the changes are not commonly known in the field of Thai higher education. Moreover, some academics perceive KMUTT as an institution with high stability rather than one who strives for survival. Therefore, some deans and academics cling strongly only to their existing main duties such as teaching, research and publishing rather than searching for external support themselves. Like other units of the university, academic departments combine both those who are changed oriented staff and conservative staff who are willing to change to support their university. However, they suggested it is important for the university to enhance internal communication and proactive policy implementation for all units. Finally, the “integrated entrepreneurial culture” has not yet been fully established. Entrepreneurial university has not been officially introduced among its stakeholders and the definitions of the concept given by its internal stakeholders are too various to consider as a common belief of KMUTT. However, the integrating entrepreneurial university culture in KMUTT can be seen through the extension of existing practices such as the diversifying financial sources, extending outreach administrative units, promoting changed oriented administrators and instilling entrepreneurship among academics and students. The transformation of KMUTT towards entrepreneurial university is driven by the country’s economic demands. KMUTT’s valuable reputation in science and technology education and networks is kept in high regard by state and private sector. Therefore, the university is pushed to be a forefront university for economic development. KMUTT resources and capabilities include the existing university industry linkages, various sources of funding, changed oriented university executives and the increased entrepreneurial spirit after receiving autonomy. These together make KMUTT a potential entrepreneurial university. Entrepreneurial university idea is derived from the state, private sector and international advisors.

The results of this research support the literature review that an entrepreneurial university behaves differently from traditional universities. Their existence generates hopes among policy makers. Entrepreneurial university has been defined differently that it is difficult to be described in a single concept. However, it is seen by Thai policy makers as a potential type of university which contributes to regional development as well as helps the country enhances economy. Thai higher education has adopted the entrepreneurial university concept from

elsewhere. Moreover, like higher education in Asia, entrepreneurial university concept is still new to Thai higher education and emerging to solve financial stringency problems. Thai education, especially science and technology education, is under pressure to respond to the demands of state and industry since this field of education is seen as a key area to improve Thai economy. The emergence of entrepreneurial university concept in Thai higher education context is similar to the implementation of other educational policies such as NPM and quality assurance. Thailand policy makers borrow the initiatives from foreign countries and promote new ideas among Thai university executives. There is a match between the positive view from the policy makers on the roles of entrepreneurial university in economy development and KMUTT's core mission in producing practical graduates to support Thai society and economy. Therefore, KMUTT complies with the government's initiatives and becomes a strategic driver of Thailand's economic policy. Moreover, the entrepreneurial university model is also valued as a way for the university to survive the insufficient state financial support and reduce the mismatch of graduate profiles and labour markets. Entrepreneurial university in Thailand develops in the similar ways as some other universities in Asia that the concept was imported from western countries and stimulated by scarce resource such as limited public funding.

All in all, entrepreneurial university is a type of university which emerges as an alternative for Thai higher education and the nation. The successful entrepreneurial university implementation requires successful internal communication and understanding about the concepts among KMUTT stakeholders. KMUTT, like some of other universities in Asia, has instilled entrepreneurial university concept to support national policies and survive the difficulties in its setting.

#### 4.4 Areas for Future Research

It is recommended for future research regarding entrepreneurial university in Thailand to study more about other Thai universities. Although it is acceptable to use a university as a case study to explore the existence and the development of entrepreneurial university concept in a country, a multiple case study method could be used to compare different universities under the same theoretical frameworks and control variables. The scope of interviews can be broadened to involve more of other university internal stakeholders such general university officers and researchers as well as external stakeholders such as industrial partners, alumni



and government. Moreover, an additional set of theoretical frameworks could have been used to analyse the case study to cover various factors influencing entrepreneurial university behaviours. It is recommended for future research to use quantitative research for various research contributions to the research topic. Research topics regarding university funding mechanisms in Thailand are suggested to be added to the country's higher education knowledge pool.

## 4.5 References

Clark, B. R. (1998a). *Creating Entrepreneurial Universities: Organizational Pathways of Transformation*.

Issues in Higher Education. Oxford, UK: IAU Press.

Clark, B. R. (1998b). The entrepreneurial university: Demand and response. *Tertiary Education & Management*, 4(1), 5-16. doi:10.1080/13583883.1998.9966941

Clark, B. R. (2004a). Delineating the character of the entrepreneurial university. *Higher Education Policy*, 17(4), 355-370. doi:10.1057/palgrave.hep.8300062

Clark, B. R. (2004b). *Sustaining change in universities*. UK: McGraw-Hill Education.

Clark, B. R. (2015). The character of the entrepreneurial university. *International Higher Education* (38). doi:10.6017/ihe.2005.38.7456

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. USA, California: Sage Publications.

Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. USA, California: Sage publishing.

Etzkowitz, H. (2013). Anatomy of the entrepreneurial university. *Social Science Information*, 52(3), 486- 511. doi:10.1177/0539018413485832

Intarakumnerd, P., & Schiller, D. (2009). University-industry linkages in Thailand: Successes, failures, and lessons learned for other developing countries. *Seoul Journal of Economics*,

22(4), 551. doi:10.1080/19761597.2017.1302399

KMUTT. (2017, 10 February). KMUTT profile. Retrieved from <http://www2.kmutt.ac.th/>

Kohlbacher, F. (2006). The use of qualitative content analysis in case study research. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 7(1).

Rungfamai, K. (2011). Research universities in Thailand. (Doctoral thesis), University of Hong Kong, Hong Kong.

Sae-Lao, R. (2013). The Logic of the Thai Higher Education Sector on Quality Assessment Policy. (Doctoral thesis), Columbia University, New York, USA. 83

Savetpanuvong, P., & Pankasem, P. (2014). Entrepreneurial University model: A theoretical perspectives on strategy, entrepreneurship, and innovation. Paper presented at the Management of Innovation and Technology (ICMIT), 2014 IEEE International Conference.

Stake, R. E. (2000). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative methods* (pp. 435-453). Thousand Oaks, USA: Sage Publishing.

UNCTAD. (2015). Science, Technology & Innovation Policy Review Thailand. Retrieved from [http://unctad.org/en/PublicationsLibrary/dtlstict2015d1\\_en.pdf](http://unctad.org/en/PublicationsLibrary/dtlstict2015d1_en.pdf)

Yamsri. (2016). The Council of Mahidol University's Meeting Report "รายงานการประชุมสภามหาวิทยาลัยมหิดล ครั้งที่ 510" Retrieved from [http://www.uc.mahidol.ac.th/pdf-file/meetings-report2559/MeetingReport\\_510.pdf](http://www.uc.mahidol.ac.th/pdf-file/meetings-report2559/MeetingReport_510.pdf)

## 5 Responsiveness of Higher Education Institutions in Eastern Ukraine to the Crisis Situation

Olesya Gladushyna

### 5.1 Background

Viability and success of an organization largely depend on its ability to adapt to externalities and take adequate responsive measures to deal with major events which threaten an organization itself or its stakeholders. This has become a common practice for any kind of organizations to regularly identify, assess, prioritize risks and introduce effective plans which are designed to indicate the most optimal way to respond, manage crisis situations and recover with minimal damage.

Universities, as any other organizations, face numerous challenges in their day-to-day operations and activities, and therefore, have to elaborate convenient strategies to overcome difficulties and maintain stability. However, what happens to higher education institutions (HEIs) when they become involved in crisis and emergency situations? Obviously, in such critical context common recommendations for successful performance may fail since institutions require specific approaches to mitigate the impact of the crisis and continue to fulfil their three core missions: teaching, research, and societal engagement. From this perspective, three missions of a university have to be adapted to a new hostile environment in order to deal with uncertainties through modifying university's vision, goals, and services.

In 2014, Ukraine witnessed a clash of severe war in its Eastern part which changed fundamentally the overall situation in the country. There were different factors which contributed for escalating this unprecedented armed conflict: the region has a complex structure in terms of socio-economic, political and cultural aspects, infrastructural peculiarities, language and religious issues. Eastern Ukrainian area, also called Donbass region, is distinguished by its complicated historical path and diversified ethnic composition where various cultures and traditions are closely intertwined.

Unfortunately, the recent events in Ukraine led to vulnerable status of universities in East Ukraine and urged them to flee from the conflict zone, acquiring a new status of a displaced university. Identity challenges have been raised sharply almost at all displaced universities as a result of political and cultural clashes among the institutional staff and authorities. There are some cases when a university president openly supported the pro-Russian movement in Eastern Ukraine and other employees were nationalistic driven. For example, the rector of Luhansk National Agrarian University had clear preferences for cooperating with the pro-Russian regime in the city and used the available financial and infrastructural resources to operating the university under the new power. On the other hand, a group of academics and administrative staff from Luhansk National Agrarian University moved to another city, Kharkov, which is controlled by Ukrainian forces, and formed a university in exile, trying to accumulate all possible human resources and students from the institution they worked in before the conflict. The displaced university was provided with premises and work equipment by the Kharkov municipality, and the university started its new life in another city but with the same name, vision and mission as it has in its hometown.

It should be noted that most top managers of Eastern Ukrainian universities adhere to the Ukrainian integrity, and therefore, encouraged their employees to continue working in the university but on the territory controlled by Ukrainians. Certain universities had a main campus in Luhansk or Donetsk and possessed branch campuses in other cities/regions. In case if the branch campuses were not occupied by pro-Russians, the evacuation process was alleviated by having real property and infrastructural facilities in the branch campuses. Unfortunately, some universities did not have branch campuses, or their branch campuses were in the war zone, then they had to move to a new place seeking support from the government to provide them with premises and technical assistance. This is the instance of Donetsk National University that moved to Vinnytsia, a city in central Ukraine. According to the data of the Coordinating Centre of Displaced Universities, Donetsk National University lost almost 10 000 students and 500 academics after evacuation, but it was ranked as the second-best college in central Ukraine in 2016 (EuroMaidan Press, 2017) which shows a great potential of a displaced university.

Despite the uncertainty of the situation, the common aspiration of all displaced universities is that the armed conflicted will be over, and they could return to their main campuses and

hometowns. In this regard, the government has issued a number of regulations that recognize and support displaced universities by involving them in grant programmes and initiatives in cooperation with international community. The Ministry of Education and Science of Ukraine (MoES) that oversees evacuated universities also emphasizes that these universities present an opportunity for Ukraine to advance (Grynevich, 2017) and to improve distance learning in higher education as all displaced universities moved to online and blended delivery mode.

However, the geopolitical problems stemmed from the armed conflict do not solely escalate the crisis situation at evacuated universities. The recent revolutionary reforms in HE, lack of appropriate mechanism to support these reforms and overcome resistance from university representatives cause instability of all other Ukrainian universities, meanwhile aggravating already fragile position of displaced institutions. Worsening of economic conditions, inflation, underpayment, unemployment and consequent poverty issues in the whole country provoke weakness and vulnerability of HEIs, stimulating them to find effective approaches to survive in a new environment. In these circumstances, the competition among Ukrainian HEIs becomes extremely severe, and unfortunately, the majority of evacuated universities lose their chances to attract talented students, keep qualified staff and develop the sustainable relationship with national or foreign stakeholders due to the uncertainties they are involved in.

### *5.1.1 Problem statement*

Crisis and emergency situations occur due to various factors among which politics, economy, cultural, ecological issues are determinants and in some cases, have a significant or crucial influence on the functioning of higher education at institutional, regional or national levels. Numerous disagreements arise between states and change the educational landscape of regions; socio-economic problems make the higher education fragile and put it at risk of arduous conflicts and lead to dramatic consequences. This creates difficulties and urges universities and other stakeholders to seek adequate responsive measures to meet the external pressures. One of the typical criticisms of crisis and transition response is that higher education system and institutions react unprofessionally, slowly and lack the support of national or international community.

In particular, Eastern Ukraine has a complex structure in terms of socio-economic, political and cultural aspects which threaten the effectiveness and stability of university governance in

the region. Accordingly, there is an urgent need to reconsider and assess the university leadership strategies and elaborate techniques to face the emerging challenges which might transform into critical situations for HEIs.

### *5.1.2 Research Gap*

Crisis management in higher education has been widely discussed and explored in the international business and scientific literature. In Ukraine, there are dissertations which are focused on diverse aspects of university governance; however, they do not discuss the interdependence of internal and external environment on the creation of crises in university governance as well as preventive measures for university management in arduous circumstances. Moreover, it should be mentioned that the field of crisis management in higher education is uncultivated in Ukraine and only few articles might be found that analyse theoretical frameworks of crisis management in the context of the whole Ukrainian higher education system. Furthermore, universities in Donbass region differ from the other Ukrainian HEIs due to the specific socio-cultural and economic background, especially in view of recent military events which heighten tensions in the area. Therefore, a special approach should be taken in investigating perspectives of crisis management for universities in Eastern Ukraine.

Scientifically based reports were recently produced to examine the historical background and current state of socio-economic life in Donbass and outline the strategies to overcome the critical challenges and restore Eastern Ukraine. These works have a solid and comprehensive underpinning for elaborating policy on economic, social and infrastructural reinforcement of the region's capacity. Nevertheless, the reports slightly mention about rebuilding higher education sector as an element of social policy, omit the role of universities in mitigating crises and strengthening labour market forces in the region and do not delineate approaches which should be taken to assist universities in managing crises. The conducted literature review confirms the lack of materials that provide information and analysis on the university crisis management in Eastern Ukraine and strategic planning for Donbass universities in existing fragile situation.

## 5.2 Methodology

### 5.2.1 Research Questions

The main research question guides the study: what were the predominant factors that influenced the performance of Ukrainian displaced universities in crisis management. In order to determine how the internal and external environment of higher education institutions in Eastern Ukraine affected the development of crisis in universities, which approaches were taken to avoid threats and mitigate the impact of the crisis, the paper raises up sub-questions which are as follows:

1. What are the crucial features and areas of functioning of HEIs under crisis which is triggered by the armed conflict?
2. How crisis management performance of Ukrainian displaced HEIs can be assessed?
3. What are the outcomes of crisis management decisions at displaced universities from Eastern Ukraine?
4. What are the appropriate strategies to enhance preparedness of Ukrainian HEIs to manage and mitigate the potential crisis threatening their successful performance?

### 5.2.2 Research Design

The limited up-to-date findings on university decision-making during the crisis period led to the selection of qualitative approaches in investigating the research questions. Qualitative methods were used also because of the goal to find out details of the crisis management processes at institutional level through the lens of top managers at displaced universities in Eastern Ukraine.

The first methodological step of the present study was conducting a desk research with a view to gather and analyse the information on the crisis management performance of Ukrainian displaced universities, available in print or on the Internet. The landscape analysis was done in order to diagnose the environment in which universities operate in Eastern Ukraine and to determine drivers for crisis management through document review (university official web sites and available institutional documentation, national policy agenda and regulations).

Based on the literature review, the key areas of university functioning under crisis were identified and the comprehensive framework was elaborated and applied to the survey instrument in order to evaluate the overall performance of displaced universities. Intentionally, a case study was chosen because its definition correlates to the parameters of this dissertation: a variation of an ethnography that allows a researcher to explore in-depth a bounded system (which means that a study has boundaries, usually by time, place or activity) based on extensive data collection (Cresswell, 2003). Furthermore, Gay and Airasian (1996) asserted that the major focus of the qualitative research is to shed light on the further understanding on the collected data from the researcher's perspective.

The questionnaire was used as a research instrument for data collection and was constructed on open-ended questions. The answers to the questionnaire were analysed using qualitative research method which refers to searching for patterns, identifying themes, finding connections and making interpretations (Hatch, 2002). This method was used to pinpoint the key themes that derived from the answers of the two participating institutions. Although the questionnaire was designed in a thematic way, and each section directed to nine dimensions of the core feature and functions of a displaced university, there were other emerging themes that helped to see a new vector in the analysis. The obtained findings allowed to explore the crisis management approaches at displaced universities and to draw up a set of recommendations regarding the enhancement of the crisis management skills among university leaders to enable them to coordinate expertly institutional actions and to avoid or lessen crisis impact.

### *5.2.3 Description of evaluation framework*

The framework was designed specifically for evaluating the performance of displaced universities from Eastern Ukraine in crisis management. The performance in crisis management could be defined as an action or process of performing a task or a function by an individual or a certain group of people that aim at mitigating the impact of a crisis. To explore the performance of displaced universities, the nine dimensions, covering the core features and functions of a university under crisis, were identified based on an extensive literature review (Salmi, 1992; Nikolaenko, 2009; Totska, 2012; Bobyleva, 2015; Blagodeteleva-Vovk, 2015; Tomlinson & Benefield, 2005; Novelli and Lopes-Cardozo, 2008; Horvat, 2010; Schneller's, 2010; Smith, 2010; Osipian, 2014; Gill, 2012; Jacobsen, 2010; Garcia, 2015; Zdziarski, 2001; Burrell, 2009; Muffet-Willet, 2010; Cowan, 2014) and discussions with



researchers and practitioners in higher education management as well as crisis management. The following nine dimensions constitute the areas for assessment of the university performance in time of crisis: 1) human resources; 2) students; 3) study process; 4) societal engagement; 5) leadership; 6) organizational culture; 7) funding; 8) infrastructure; 9) partnerships.

The above-mentioned dimensions are evaluated based on the 6 stages of the crisis which were adapted from Fink's crisis lifecycle (Fink, 1986), Mitroff's five stages of crisis management (Mitroff, 1994), and McConnell's framework of processes in crisis management (McConnell, 2011). The six stages of the crisis introduced by this study are as follows: 1) pre-crisis stage; 2) crisis detection stage; 3) crisis breakout; 4) crisis management decision-making stage; 5) crisis intervention stage; and 6) crisis management outcomes stage.

### 5.3 Key Findings

The results of the research indicated six predominant factors that influenced the performance of Ukrainian displaced universities in crisis management. The first factor refers to the strong and effective university support in crisis circumstances, especially from the rectors who are in the position to adopt university-wide crisis management decisions and interventions. However, the case of DU showed that people outside of top and middle management levels assumed a leadership and catalytic role in founding a displaced university.

Organizational identification and self-identification were the main driving force for creating a clandestine group at DU and initiate a relocation of the institution. Both LNU and DU had to clearly determine their organizational identity that shaped the further development of universities in exile. Therefore, identity issue constitutes an important factor in crisis management, in particular in the cases of armed conflicts, where the political and cultural preferences guide people's decision and actions.

Lack of communication caused aggravated frustration among employees and students of LNU as after the relocation the university tried to reach its member and to inform them about the displaced status of the HEI. Evacuated DU also put efforts to deliver a message to co-workers and students about an opportunity to remain in the Ukrainian higher education system. Here the

communication was the crucial factor for both universities to attract employees and students as well as to launch a study process. Unfortunately, the absence of proper communication means, and data delayed the recovery process of the universities in exile.

It was evident throughout the answers of the questionnaire that moral of employees at displaced universities was weakened by the unavailability of appropriate living and working conditions. Many university representatives did not dare to leave the occupied territories due to their incapacity to find accommodation on the Ukrainian territory. Similarly, displaced DU received limited resources to provide necessary conditions for studies and work, whereas LNU tried to enhance the learning facilities at the branch campus in order to provide quality education and training. Infrastructure is a crucial factor for the successful performance of displaced universities that cannot be underestimated. The proposal for cost sharing model between two or more Ukrainian HEIs could be a solution for displaced universities to reinforce their infrastructural capacity and provide students and staff with relevant material basis.

The armed conflict drastically affected the economy of Ukraine and the financial stability of Eastern Ukrainian universities which is another predominant factor of the crisis management performance. Displaced HEIs largely rely on government appropriations that cannot cover completely the pressing demands of universities in terms of renting premises and purchasing equipment for training purposes. Hence, various possibilities on how to diversify revenue sources have to be analysed by evacuated universities to ensure their positive progression. In this context, it is reasonable for Eastern Ukrainian universities to establish solid partnerships with international development organizations, national and foreign universities as well as business enterprises that could provide technical and financial assistance to displaced universities.

Finally, displaced universities managed to find an alternative way for maintaining the study process, namely they integrated blended learning into the institutional curriculum. Online learning appeared to be innovative for Ukrainian universities and at the same time the only feasible solution to attract students and staff who could not move to the new location of the evacuated universities, but who endeavoured to remain under the umbrella of these HEIs. Hence, the success factor of the performance of the displaced universities during the crisis

period was the introduction of distance education as well as the effectiveness of harnessing learning technologies, for instance, launching an online platform and arranging professional training for academics on how to use the new digital instruments in teaching.

The crisis in Eastern Ukraine revealed the weaknesses of university management structures and models and at the same time showed that displaced HEIs are committed to survive as well as managed to institutionalize change and innovations under the fragile circumstances in order to remain in demand among students, staff and society at large. Moreover, relocated institutions have a potential to contribute to the recovery of local communities from the stressors and hostilities through their social engagement actions. This could be realized through the delivery of peace education to the members of the community as well as through researches on the challenges that are faced by local inhabitants. The evidence-based recommendations provided in this dissertation to various stakeholders aim at improving the management performance in higher education and ultimately reinforce the institutional capacity and sustainability of displaced universities.

#### 5.4 Directions for further research

Given the lack of empirical data on crisis management in higher education, further research is needed to explore the drawbacks and advantages of crisis management theories and practices in the context of diverse crisis situations. Since the present study investigated the crisis management from the perspective of top managers of displaced universities, it will be interesting to know the analyse the perception of students, staff and other stakeholders towards the decision-making processes and implementation of crisis management actions during the conflict breakout. The governmental performance could be also examined in terms of support and coordination of at-risk universities in Eastern Ukraine to understand the level of state participation and influence on displaced universities during the critical period of the military unrest.

Although this research intentionally focused on public universities and left out private HEIs from Eastern Ukraine, there could be done similar research among private universities that experienced the armed conflict. Private institutions have more independent financial status in comparison with public universities, that largely rely on the state appropriations, and

characterized by having a specific leadership structure, where the leader is usually highly motivated to keep the effective management team and preserve the contingent of students. Based on this, it might be assumed that the crisis management processes were carried out in a different way at private universities and differ considerably from the processes at public institutions.

Another possibility would be to conduct survey or interviewees with the representatives of other Ukrainian HEIs to scrutinize what types of situations or events they consider to be critical to their universities and what management techniques they use in order to raise the preparedness to mitigate a potential risk.

## 5.5 Acknowledgements

I perceive this Master's thesis as a milestone achievement in my professional development. For all achievements in my life, I am grateful, first of all, to my family who always supports, encourages me, nurtures wonderful dreams in me and helps to reach them. I would like also to express gratitude to my supervisors Prof. Dr. Hans Vossensteyn and Dr. Rainer Lisowski for supporting my research topic and imparting practical advices.

## 5.6 References

Ahmad, A. R., Farley, A., & Naidoo, M. (2013). Funding crisis in higher education institutions: Rationale for change. *FormaMente*, (1-2013), 13.

Albrecht, S. (1996). Crisis management for corporate self-defence: How to protect your organization in a crisis, how to stop a crisis before it starts. New York, NY: American Management Association.

Andreichuk, S. (2007). *State Management in Reforming Higher Education in Ukraine in the Context of the Bologna Process. Dissertation* (in Ukrainian). National Academy of Public Administration under the President of Ukraine.

Asimakopoulou, G. (n.d.). Is employee performance related to effective crisis management? A review of literature. Available at: [http://www.academia.edu/3146005/Is\\_employee\\_performance\\_related\\_to\\_effective\\_crisis\\_management\\_A\\_review\\_of\\_literature](http://www.academia.edu/3146005/Is_employee_performance_related_to_effective_crisis_management_A_review_of_literature) [Accessed on 15<sup>th</sup> May 2017].

Bakhrushyn, V. (2015). [Authoritarianism or Chaos: Where the Higher Education Should Move to?]. Available at: <http://www.osvita.org.ua/articles/2054.html> (in Ukrainian). [Accessed on 24<sup>th</sup> April 2017].

Barton, L. (2001) *Crisis in Organizations II*, 2nd ed., College Divisions South-Western, Cincinnati, OH.

Bazerman, M. H., & Watkins, M. D. (2004). *Predictable surprises: The disasters you should have seen coming, and how to prevent them*. Boston, MA: Harvard Business School Press.

Bernstein, J. (2016). The 10 Steps of Crisis Communication. Available at: <https://www.bernsteincrisismanagement.com/the-10-steps-of-crisis-communications/> [Accessed on 10<sup>th</sup> July 2017].

Biemer, P. P., & Christ, S. L. (2008). Weighting survey data. *International handbook of survey methodology*, 317-341.

Blagodeteleva-Vovk, S. (2015) Higher Education: Crisis as a Demand for Anti-crisis Management. Available at: <http://osvita.ua/vnz/reform/46984/> [Accessed on 14<sup>th</sup> March 2017].

Bobyleva, A., and Sidorova, A. (2015) Crisis management in higher education in Russia. *Crisis*, 3(1), 23-35.

Bogdan, R. C. & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods* (5<sup>th</sup> ed.). New York, NY: Pearson Education.

Booth, S. A. (2015). *Crisis management strategy: Competition and change in modern enterprises*. Routledge.

Bradfield, R. et al. (2005) The Origins and Evolution of Scenario Techniques in Long Range Business Planning. *Futures*, 37(8), 795-812.

Burnett, J. J. (1999) Strategic Approach to Managing Crises. *Public relations review*, 24(4), 475- 488.

Burrell, S. M. (2009). An examination of crisis preparedness at Christian-affiliated institutions of higher education. Doctoral dissertation, Mississippi State University.

Cardozo, M. L., et al. (2015). Literature Review: Youth Agency, peace-building and Education. Research Consortium Education and peace-building. University of Amsterdam.

Clark-Kazak, C. (2016). Teaching forced migration: Pedagogy in the context of global displacement crises. *Migration Studies*, mnw009.

Coombs, W. T. (1995). Choosing the right words: The development of guidelines for the selection of the “appropriate” crisis-response strategies. *Management Communication Quarterly*, 8, 447-476.

Coombs, W. T. (1998). An Analytic Framework for Crisis Situations: Better Responses from a Better Understanding of the Situation. *Journal of public relations research*, 10(3), 177- 191.

Coombs, W. T. (1999). *Ongoing crisis communication: Planning, managing, and responding*. Thousand Oaks, CA: Sage.

Coombs, W. T. (2007). *Ongoing Crisis Communication: Planning, Managing and Responding*. 2nd ed. Los Angeles, London, New Delhi and Singapore: Sage.

Cowan, S. (2014). *The inevitable city: The resurgence of New Orleans and the future of Urban America*. New York, NY: Palgrave Macmillan.

Crandall, W., & Spillan, J. E. (2009). *Crisis management in the new strategy landscape*. Sage.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Denzin, N. K. (1973). *The research act: A theoretical introduction to sociological methods*. New Jersey: Transaction publishers.

Dilenschneider, R. L. (1990). *Power and influence: Mastering the art of persuasion*. New York, NY: Prentice Hall Press.

Dillman, D. A. (2008). The logic and psychology of constructing questionnaires. *International handbook of survey methodology*, 161-175.

Drabek, T. E. (1991). Anticipating organizational evacuations: Disaster planning by managers of tourist- oriented private firms. *International Journal of Mass Emergencies and Disasters*, 9(2), 219-245.

EuroMaidan Press (2017). Displaced universities: 18 Ukrainian colleges are exiled in their own country. Available at: <http://euromaidanpress.com/2017/02/25/displaced-universities-how-18-ukrainian-colleges-from-donbas-and-crimea-are-living-in-exile-in-their-own-country/#arvlbdata> [Accessed on 15<sup>th</sup> May 2017].

Fedorchenko, Y. (2015). [The Reform of the Higher Education: Compromise of Stakeholders]. Available at: <http://krytyka.com/ua/community/blogs/reforma-vyshchoyi-osvity-kompromis-steykholderiv> (in Ukrainian) [Accessed on 24<sup>th</sup> April 2017].

Fink, S. (1986). *Crisis management: Planning for the inevitable*. New York: AMACOM.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245. Available at:  
<http://qix.sagepub.com/content/12/2/219.short?rss=1&ssource=mfr> [Accessed on 11<sup>th</sup> May 2017].

Gangrade, K. D. (1982). Methods of Data Collection: Questionnaire and Schedule. *Journal of the Indian Law Institute*, 24(4), 713-722.

Garcia, B. D. (2015). *Crisis Leadership: The Roles University Presidents and Crisis Managers Play in Higher Education-A Case Study of the State University System of Florida*. Dissertation. Florida International University.

Garcia, B.D. (2015). *Crisis Leadership: The Roles University Presidents and Crisis Managers Play in Higher Education – A Case Study of the State University System of Florida*. Dissertation. Florida International University.

Gay, L. R., & Airasian, P. (1996). *Educational research: Competitiveness for analysis and application*. Merrill, WI: Merrill.

Gill, J. (2012). *From Crisis to Stability: A Case Study of Presidential Leadership at a Christian College*. Dissertation. Western Michigan University.

Gladushyna, O. (2016). The shifting tides of higher education in Ukraine: Background, expectations and reality. *Working Papers in Higher Education Studies*, 2(1).

Gladushyna, O. (2017). UNESCO's strategy for rebuilding higher education in crisis and emergency situations. *The Modern Higher Education Review*, (1).

Gouran, D. S. (1982). *Making decisions in groups: Choices and consequences*. Glenview, IL:



Scott, Foresman.

Grynevich, L. (2017). *Displaced universities are the opportunities and not problems for Ukraine*. Available at: [http://www.kmu.gov.ua/control/publish/article?art\\_id=249753713](http://www.kmu.gov.ua/control/publish/article?art_id=249753713) [Accessed on 18<sup>th</sup> May 2017].

Guba, E. G., & Lincoln, Y. S. (1981). *Effective evaluation: Improving the usefulness of evaluation results through responsive and naturalistic approaches*. San Francisco, CA: Jossey-Bass.

Harasim, L. (2012). *Learning Theory and Online Technologies*. New York/London: Routledge.

Hatch, J. A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.

He, H., & Brown, A. D. (2013). Organizational identity and organizational identification: A review of the literature and suggestions for future research. *Group & Organization Management*, 38(1), 3-35.

Herman, C., & Kirkup, G. 2008. Learners in transition: the use of ePortfolios for women returners to science, engineering and technology. *Innovations in Education and Teaching International*, 45: 67- 76.

Hillson, D., & Simon, P. (2012). *Practical project risk management: The ATOM methodology*. Management Concepts Inc.

Horvat, P. (2010). *Conflict and Education – Data analysis on the public's views on education in conflict- affected countries*. Background paper prepared for the Education for All Global Monitoring Report 2011 *The Hidden Crisis: Armed conflict and education*, Paris: UNESCO.

Huisman, J., De Boer, H., & Botas, P. C. P. (2012). The future of English higher education: the changing landscape 12.

Huston, T. A., & DiPietro, M. (2007). In the eye of the storm: Students perceptions of helpful faculty actions following a collective tragedy. In D. R. Robertson & L. B. Nilson (Eds.) *To Improve the Academy: Vol 25. Resources for faculty, instructional, and organizational development*. Bolton, MA: Anker. Pp. 207-224.

Jacobsen, M.J. (2010). *Leadership Strategies Dealing with Crisis as Identified by Administrators in Higher Education*. Dissertation. Texas A&M University.

Kirkwood, A. and Price, L. (2014). Technology-enhanced learning and teaching in HE: what is 'enhanced' and how do we know? A critical literature review. *Learning, Media and Technology*, 39(1) pp. 6– 36.

Knezevic, N., & Smith, G. (2015). Humanitarian action, conflict sensitivity and peacebuilding through education in South Sudan: Achievements, challenges, and lessons learned. United Nations Children's Fund.

Kohler, J., and Huber, J. (2006), Higher education governance between democratic culture, academic aspirations and market forces. Available at: <http://www.coe.int/t/dg4/highereducation/Resources/Higher%20educationgovernance%20imp> o.p df [Accessed on 15<sup>th</sup> May 2017].

Kosow, H., & Gaßner, R. (2008). *Methods of future and scenario analysis*. DIE.

Kotite, P. (2012). Education for conflict prevention and peace-building. *Meeting the global challenges of the 21st Century*. Paris: International Institute for Educational Planning.

Lauge, A., Sarriegi, J. M., & Torres, J. (2008). The dynamics of crisis lifecycle for emergency management. *Technun, University of Navarra*, 4-16.

Libanova, E. et al. (2015). Policy of Integration of Ukrainian Society in the Context of Challenges and Threats of Donbass Events. National Report (in Ukrainian). Kiev: National Academy of Science of Ukraine.

McConnell, A. (2011). Success? Failure? Something in-between? A framework for evaluating crisis management. *Policy and Society*, 30(2), 63-76.

Merriam, S. B. (2002). Qualitative research in practice: Examples for discussion and analysis. San Francisco, CA: Jossey-Bass.

Miles, M. B., & Huberman, M. A. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage Publications.

Milofsky, A., et al. (2011). *Peace-building Toolkit for Educators*. Washington, D.C.: United States Institute of Peace Press.

Minakov, M. (2015). [The Reform of the Higher Education in the Grip of Cargo Cult of Autonomy and in the Hegemony of Bureaucrats]. Available at: <http://krytyka.com/ua/community/blogs/reforma-vyshchoyi-osvity-v-leshchatakh-kargo-kultu-avtonomiyi-i-hegemoniyi> (in Ukrainian). [Accessed on 24<sup>th</sup> April 2017].

Ministry of Education and Science (2015). National and patriotic education will be realized through a new concept. Available at: <http://mon.gov.ua/usl-novivni/novini/2015/06/16/nacZIONalno-patriotichne-vixovannya/> [Accessed on 27<sup>th</sup> May 2017].

Mishra, A. K. (1996) Organizational Responses to Crisis. *Trust in Organizations. Frontiers of theory and research*, 261-287.

Mitroff, I.I. (1994). Crisis management and environmentalism: a natural fit. *California*

*Management Review*, 36(2): 101-113.

Muffet-Willett, S. L. (2010). Waiting for a crisis: Case studies of crisis leaders in higher education. Doctoral dissertation, University of Akron.

Myers, K. N. (1993). Total contingency planning for disasters. *New York: John Wiley & Sons*, 103.

National Academy of Science of Ukraine (2015). Restoration of Donbass: Evaluation of Socio- Economic Loss and Priority Trends of State Policy. Available at: [www.idss.org.ua/arhiv/2015\\_23\\_09Resume.doc](http://www.idss.org.ua/arhiv/2015_23_09Resume.doc) [Accessed on 23<sup>rd</sup> July 2016] (in Ukrainian).

Nikolaenko, S. (2009). Theoretical and Methodological Basis of Management in Innovative Development of Educational System in Ukraine. Dissertation (in Ukrainian). State Higher Education Institution “University of Educational Management”.

Novelli, M., & Cardozo, M. T. L. (2008). Conflict, education and the global south: New critical directions. *International Journal of Educational Development*, 28(4), 473-488.

Obozrevatel (2016). The true “cancerous tumour”: Grybauskaite has indicated the main problem for Ukraine. Available at: <http://obozrevatel.com/politics/05428-nastoyaschaya-rakovaya-opuhol-gribuskajte-oboznachila-glavnuyu-problemu-ukrainyi.htm> [Accessed on 27<sup>th</sup> May 2017].

OECD (2008). Higher Education to 2030: What Futures for Quality Access in the Era of Globalisation? Four Future Scenarios for Higher Education. Available at: <http://www.oecd.org/edu/skills-beyond-school/42241931.pdf> [Accessed on 21<sup>st</sup> March 2017].

Ogilvy, J., & Schwartz, P. (1998). Plotting Your Scenarios. *Emeryville: GNB*.

Olson, J., et al. (2011). An analysis of e-Learning impacts & best practices in developing

countries-with reference to secondary school education in Tanzania. *Michigan State University, College of Communication Arts & Sciences*.

Oparanma, A. (2014). Crisis Management to Ensure Effective and Continuous Performance. Available at: <https://www.researchgate.net/publication/273193454> [Accessed on 10<sup>th</sup> June 2017].

Osipian, Ararat L. (2014). Transforming University Governance in Ukraine: Collegiums, Bureaucracies, and Political Institutions. *Higher Education Policy*, 27 (65-84).

Pauchant, T. C., & Mitroff, I. I. (1992). Transforming the crisis-prone organization: Preventing individual, organizational, and environmental tragedies. San Francisco, CA: Jossey-Bass.  
Pearson, C.M. and Clair, J. A. (1998) Reframing Crisis Management. *Academy of management review*, 23(1), 59- 76.

Pinsdorf, M. K. (1999). Communicating when your company is under siege: Surviving public crisis. Fordham Univ Press.

Postma, T. J., & Liebl, F. (2005). How to improve scenario analysis as a strategic management tool? *Technological Forecasting and Social Change*, 72(2), 161-173.

Presidential Order (2013). [On National Strategy of the Development of Education in Ukraine for the period till 2020]. Available at: <http://zakon4.rada.gov.ua/laws/show/344> (in Ukrainian).

Pshenychna, L. (2009). State Contribution to the Adaptation of the Higher Education System in Ukraine to the Requirements of the Bologna Process. Dissertation. (in Ukrainian). National Academy of Public Administration under the President of Ukraine.

Rasmus, D. (2016) Why Higher Education Needs Scenarios. Available at: <http://www.universitybusiness.com/article/why-higher-education-needs-scenarios> [Accessed on 1<sup>st</sup> April 2017].

Ringland, G., and Schwartz, P. P. (1998) *Scenario Planning: Managing for the Future*. Wiley & Sons.

Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.

Salmi, J. (1992) The Higher Education Crisis in Developing Countries: Issues, Problems, Constraints and Reforms. *International Review of Education*, 38(1), 19-33.

Schneller, C., & Golden, S. (2010). The Impact of the Financial Crisis to HE. In *The 1st Asia-Europe Education Workshop*.

Schoemaker, P. J. (1995) Scenario Planning: a Tool for Strategic Thinking. *Sloan Management Review*, 36(2), 25-40.

Scott, B.A. (1983) *Crisis Management in American Higher Education*. New York: Praeger Publishers, CBS Educational and Professional Publishing.

Seeger, M. W., Sellnow, T. L., & Ulmer, R. R. (2003). *Communication and organizational crisis*. Westport, CT: Praeger.

Seymour, M., & Moore, S. (2000). *Effective crisis management: Worldwide principles and practice*. London, England: Cassell.

Shrivastava, P., Mitroff, I. I., Miller, D., & Miclani, A. (1988). Understanding industrial crises [1]. *Journal of management studies*, 25(4), 285-303.

Smith, A. (2010). The influence of education on conflict and peace building. Background paper prepared for the Education for All Global Monitoring Report 2011 The Hidden Crisis:

Armed conflict and education, Paris: UNESCO.

Smith, D. (1990). Beyond contingency planning: Towards a model of crisis management. *Organization & environment*, 4(4), 263-275.

South African Regional Universities Association (SARUA) (2012). *Building higher education scenarios 2025: a strategic agenda for development in SADC*. SARUA, Johannesburg, South Africa.

Staw, B. M., Sandelands, L. E., & Dutton, J. E. (1981). Threat-rigidity effects in organizational behavior: A multilevel analysis. *Administrative Science Quarterly*, 26, 501-524.

Tafra-Vlahović, M. (2013). Leadership in Crisis Management. In First International Conference on Management, Marketing, Tourism, Retail, Finance and Computer Applications.

Tomlinson, K., & Benefield, P. (2005). *Education and Conflict: Research and Research Possibilities*. National Foundation for Educational Research. The Mere, Upton Park, Slough, Berkshire, SL1 2DQ, UK.

Totska, L. (2012). Scientific Researches on University Governance: Retrospective Analysis (in Ukrainian). *Problems of Innovative and Investment Development*, 4, 30-42.

Turner, B. A. (1976). The organizational and interorganizational development of disasters. *Administrative Science Quarterly*, 21, 378-397.

Valackiene, A. (2011). Theoretical substantiation of the model for crisis management in organization. *Engineering Economics*, 22(1).

Venette, S. J. (2003). Risk Communication in a High Reliability Organization. *APHIS PPQ's inclusion of risk in decision making*.

[https://www.researchgate.net/profile/Steven\\_Venette/publication/35945622\\_Risk\\_communication\\_in\\_a\\_high\\_reliability\\_organization\\_APHIS\\_PPQ's\\_inclusion\\_of\\_risk\\_in\\_decision\\_making/links/0fcfd5102d136adc70000000/Risk-communication-in-a-high-reliability-organization-APHIS-PPQs-inclusion-of-risk-in-decision-making.pdf](https://www.researchgate.net/profile/Steven_Venette/publication/35945622_Risk_communication_in_a_high_reliability_organization_APHIS_PPQ's_inclusion_of_risk_in_decision_making/links/0fcfd5102d136adc70000000/Risk-communication-in-a-high-reliability-organization-APHIS-PPQs-inclusion-of-risk-in-decision-making.pdf) [Accessed on 27<sup>th</sup> May 2017].

Vyshcha Osvita (2016). Wrongly constructed education system played its role in the onset of dramatic events in East and Crimea,-Lilya Grynevich (in Ukrainian). Available at: <http://vnz.org.ua/novyny/podiyi/9775-nepravylno-pobudovana-systema-osvity-zigrala-svoju-rol-u-pochatku-dramatychnyh-podij-na-shodi-ta-v-krymu-lilija-grynevych>[Accessed on 27<sup>th</sup> May 2017].

Zdziarski, E. L. (2001). Institutional preparedness to respond to campus crises as perceived by student affairs administrators in selected NASPA member institutions. Doctoral dissertation, Texas A&M University.



## 6 Development of an Environmental Management Game for Higher Education Professionals

Melissa Elizabeth Gonzalez Soto

### 6.1 Background

This research develops a management game for the training of Higher Education Professionals in the context of Environmental Management. It looks at the current situation of Higher Education Professional Training. Second, it reviews the advancements in environmental management training for the sector. Third, it explores the use of games for training in this topic.

Afterwards, it proposes a research design using the game and an assessment as inquiry tools to answer the research questions.

#### *6.1.1 Problem statement*

Environmental management and sustainability should be integrated in the higher education management (Jones, 2015) with the awareness of the challenges and the willingness to overcome them. To make it happen, two conditions should be set: one, the introduction of an environmental dimension in the HEI strategy, likely to be carried out by the leadership, since top-down approaches seem to be crucial for the success of any policy at HEI's, although there are examples of bottom-up approaches. Two, the staff needs training and communication strategies to set the environmental management system on the go. Disterheft, da Silva Caeiro, Ramos, and de Miranda Azeiteiro (2012) have identified that the success of environmental management systems is heterogeneous, therefore a comprehensive understanding of the context and the relationship with the stakeholders might improve the success factors.

Yet, due to the complexity of implementing environmental management systems at higher education institutions across countries with different legislations and contexts, comprehensive tools have to be developed to raise awareness and train staff about the topic

(Morrow, 2006).

### *6.1.2 Research gap*

The literature review has found that there is an increasing body of literature about the use of Environmental Management Systems and sustainability in the Higher Education sector and how to adapt them into the specifics of the institution. However, there is a constant gap to create programs to raise awareness among the staff to implement environmental measures, which results in inconsistency between the *intention* of HEI's to be more sustainable and the *implementation* of measures to make it possible.

Therefore, the limited resources to transversally tackle the challenge of environmental management at the higher institution (from strategy and awareness to implementation and selection of suitable environmental management systems) and the effect of the differentiated training between core and peripheral staff at the higher education institution set the space for this research.

The intention of this research is to set an exploratory design of an Environmental Management Game for Higher Education Professionals with the goal of offering a tailored training to raise awareness in environmental management at HEI's, which considers the context of the institution.

### *6.1.3 Research objectives and questions*

The present research aims to:

- design and test an environmental management game for higher education professionals.
- make use of the environmental management game experience to raise awareness in sustainability and environment among higher education professionals.

The research questions that this study aims to answer are the following:

1. What are the differences of the cohort awareness towards sustainability and environmental management before and after playing the Environmental Management Game for Higher Education Professionals?
2. From the game interaction, what are the qualitative and quantitative indicators of

active awareness?

#### *6.1.4 Literature review*

For this research we understand these concepts as follows:

**Sustainability** is “society cooperation for the preservation of the natural cycles of the planet and the fulfilment of human needs. This cooperation is framed within a holistic understanding of the system in question, its needs and its timeframe” (Brundtland & Khalid, 1987; Costanza & Patten, 1995; Griggs et al., 2013; Robèrt et al., 2004).

**Environmental management** is “an interdisciplinary approach to understand the functioning of the natural cycles to face the challenges related with pollution and environmental degradation; it uses technologies and processes to identify the impact and possible solutions of human activities and their interaction with the environment” (Barrow, 2005; Krishna, Manickam, Shah, & Davergave, 2017).

**Environmental management system** is, according to the United States Environmental Protection Agency, is “a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency”<sup>2</sup>.

Universities should take action into sustainable and environmental management; the worldwide HE sector has to address and barriers, practical and logistical problems to adequate its management of resources and interactions with the environment (Tangwanichagapong et al., 2017; Zhang et al., 2011). However, as a sector it is impossible to have a unique model or system for environmental sustainability management due to the local legislations, local context and other features of the university (Velazquez, Munguia, Platt, & Taddei, 2006). Universities are developing resources to share best practices in sustainability through networks, research, and others. As for the training of staff with these rewards, there is a tool called “The Sustainability manager” (Baumgartner & Winter, 2014) which is a software-

---

<sup>2</sup> USA Environmental Protection Agency <https://www.epa.gov/ems>

based tool aiming to develop competencies in sustainability management through the simulation of strategic challenges in the context of a medium-sized company, it introduces a organizational structure, material, energy and cost data. Yet, this tool is not shaped specifically for the needs of higher education.

#### *6.1.5 Imaginalia Tertiary Education Simulation Games*

The LH Martin Institute for Higher Education Leadership and Management altogether with the Center for Higher Education Policy Studies (CHEPS) of the University of Twente, the Netherlands have co-developed a series of simulation games for the training of higher education professionals in several issues ranging from the creation of a Higher Education System in an imaginary country (Imaginalia), to the proposal of new teaching models, curriculum reforms, leadership management, academic & financial parameters for the CVU strategy simulation, etc.

The authors of the Imaginalia simulations described it as “A series of connected experiential learning environments to engage decision makers in playing different roles, taking strategic and/or complex decisions, and exploring the possible outcomes of their actions within a simplified environment, a condensed timeframe and a safe setting” (Source: Imaginalia Slide provided under the Management Game course of the MARIHE program.).

The intuitive approach of these simulation games, it is the starting point of games is the *nature of the human species to socialize through playing* (Huizinga, 2014). Play is social interaction which might seem purposeless, although while playing, individuals learn about how to interact with each other and to find themselves and their roles in their social circles (Huizinga, 2014; Karpatschhof, 2013).

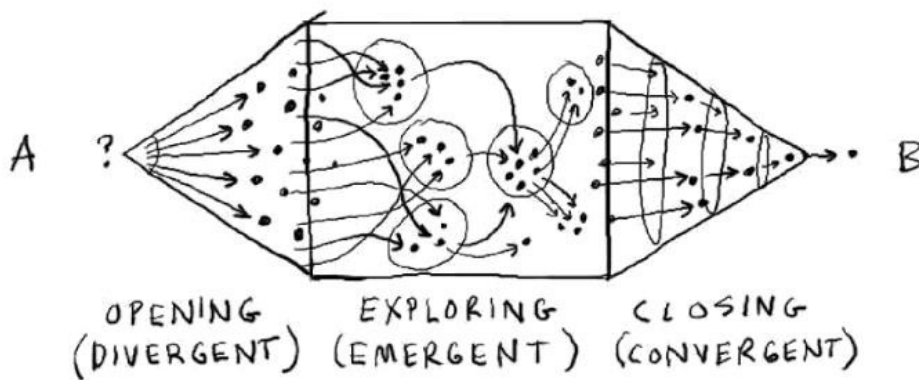
In the frame of this research the full definition from now on of “game” is “a situation where participants are interacting in real time, face-to-face with each other with a set of rules to reach a goal within a set of concepts”.

From the perspective of Gray, Brown, and Macanufo (2010), a game at the workplace should have five elements, in the next table those elements are paired with those of Reeves and Read

(2009):

Element	Definition by Gray et al (2010)	Paired element according to Reeves & Read (2009)
Game space	The alternate world where the game takes place.	Avatars; three-dimensional environments; narrative context; reputations, ranks and levels.
Boundaries	The game is situated in time and space limiting the starting and the ending of the game.	Marketplaces and economies; parallel communication systems that can be easily configured.
Rules for interaction	The rules that define the world or game space, the constraints, and regulations that must be accepted by the players.	Competition under rules that are explicit and enforced, teams.
Artifacts	The objects in the game that contain certain information or relevance in the rules. For instance, the progress chart or a ball.	Feedback.
Goal and time	The players must know the conditions for the game to end, either the goal or the time.	Time pressure

Gray et al, (2010) propose the development of a game into three stages (see figure below). First, the opening aims to brainstorm and generate ideas. Second, the exploration wants to work with the ideas generated, in this section players try to work with the resources and transform them into something new. Third, the closing pursues to converging the ideas into the ones that are the most promising.



So, how a game can serve to develop awareness? First, awareness is defined as the belief, experiences and knowledge system an individual has in relationship with the environment (Alea, 2006; Pasek de Pinto, 2004). The environmental awareness is part of the environmental education, which emerged as a response to the environmental crisis. The major goal of the environmental education is the integration of environmental values enhancing the positive relation of the individual within the environment (Mayer, 1998; Misiaszek, 2015). The relevance of raising awareness is increasingly important to create ownership and commitment between the action parties.

Environmental awareness is “trigger” to foster the environmental practices and involve everyone around. For Velazquez et al. (2005), 40% of the sustainability initiatives rely on cultural awareness to meet their goals. Beyond this, staff shall receive training to enhance their environmental awareness to ensure that they will appreciate sustainability practices in their academic and operation practice and transmit the environmental values (de Arraga, 1998).

However, developing awareness brings the challenge of transforming the belief system of people which means going beyond the action and transforming the attitudes towards environment, although it could be arguable that even “pretending” is a way of participating (Gadenne, Kennedy, & McKeiver, 2009).

## 6.2 Methodology

This study was conducted under a mixed methodology which combines qualitative and quantitative tools in the same study. From the Hernández Sampieri, Fernández Collado, and

Baptista Lucio (2003) mixed design proposals; the researcher has taken the “Application of a qualitative tool and a quantitative tool to the participants” methodology. The qualitative tool is the environmental management game for higher education professionals (EMG), and the quantitative tool is the self-assessment tool.

In order to build both tools, the researcher conducted literature research to understand the use, challenges and tendencies of environmental management in higher education. The information was compiled with the help of internet search browsers and databases (Google Scholar, EBSCO). The instrument and the game design are included in the next chapter.

Quantitative: Statistical analysis of the self-assessment instrument of environmental/sustainability awareness

The researcher will use the Statistical Package for the Social Sciences (IMBM SPSS version 20) to test the descriptive statistics and the normality of the pre and post-tests. Based on the results of the normality, the researcher will run either parametric or non- parametric tests looking for the significance between the trials.

For this procedure, the researcher has defined the variables and hypothesis as follows:

- **Dependent variable:** change in the intervals of self-assessment awareness.
- **Independent variable:** application of the environmental management game.
- **Research Hypothesis:** after the application of the environmental management game, there is a significant change in the self-assessment of environmental/sustainability awareness of the participants.
- **Null Hypothesis:** after the application of the environmental management game, there is no significant change in the self-assessment of environmental/sustainability awareness of the participants.

### *6.2.1 Qualitative*

Once the intervention has been carried out, the researchers will transcribe the dialogues and analyse the arguments and place them in the following categories:

- Tacit knowledge awareness: the arguments are related with some sort of technical knowledge assumption (Boiral, 2002; Huang & Shih, 2009).
- Resources awareness: the arguments try to explore if there are benefits from the investment in environmental practices (Gadenne et al., 2009)
- Stakeholder awareness: the arguments towards sustainability are based on the relationship the action might have to reinforce or weaken a relationship with a particular group of stakeholders (Gadenne et al., 2009).
- Social needs awareness: the arguments make reference to the fulfilment of the basic needs to reach a sustainable society Broman and Robert (2017, p. 7),

The researcher will measure the number of interventions made by every participant in general and per round. Additionally, she will measure the frequency of the arguments and cope with the categories. As part of the qualitative analysis, she will elaborate on how the arguments distributed into the categories by providing examples.

### *6.2.2 Validity and reliability*

When a study can be done for a second time and display the same results (reliable) and it measures what it intends (valid), we have quality research to trust and build upon. In this research, we aimed at reliability and validity by using a qualitative and quantitative approach.

In terms of validity, mixed methods are backed up by the concept of triangulation, Hernández Sampieri et al. (2003) explains that this feature is the central statement in mixed methods since it confronts information using different methods; therefore, there is a higher level of validity. In this research the use of a pre-test, intervention and post-test triangulates the time  $a$  where the participants are not exposed to the intervention, and time  $b$ , after it.

As for reliability, it would need several trials with different groups of populations, in order to prove that the game is consistently being played in the same way and that it is enabling awareness spaces for environmental management and sustainability across time and populations. Thus, reliability and validity are not dependent on each other, they must be proven.



### 6.2.3 Limitations

Due to time constraints, the researcher only applied the intervention once. The diversification of the applications to real stakeholders, more higher education professionals in contexts with supporting policies versus without, and control groups will be needed in further research.

### 6.2.4 Ethics

The participants were previously informed by the lecturer about participating in the intervention. Moreover, on the day of the application, the researcher proceeded with the following informed consent protocol:

1. The researcher asked for voluntary participation and expressed that participation is totally voluntary without any kind of pressure.
2. She informed the basics about the participation (why is it important to take part, what will happen, what the researcher will do, participant rights).
3. She asked for remaining questions.
4. She provided the sheet to sign the informed consent.

The informed consent is under the researcher custody, together with the data, surveys and audio records. Such documents will be destroyed in a period of five years, upon publication of the research. In the appendix, the reader can find the informed consent format.

## 6.3 Key findings

The population was formed by fifteen students, from which thirteen were students of the “Grundlagen des internationalen Wissenschaftssystems”, University of Applied Sciences Osnabrueck (UASO), which also were currently working in the field; the other two were full-time students from of the “Master in Research and Innovation in Higher Education”. The population had nine females and six males. The study took place in Osnabrueck, Germany under the supervision of Professor Dr. Hans Vosseystein. Fourteen of the participants gave their informed consent; the one missing reported verbally his consent. Also, from the fifteen participants, one left before the application of the post-test, for such case, the researcher has decided to cut the sample to 14.

### 6.3.1 Normality test

Since, we are studying the same sample at different moments, before and after the application of the EMG, we might run the Student's t-test comparing the means in the same sample.

However, we first will prove the significance through the test Shapiro-Wilk since it is the test used for samples below thirty (Ghasemi & Zahediasl, 2012).

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
DifUnderstanding	0.8	14	0.005
DifCS	0.932	14	0.328
DifPotential	0.938	14	0.399
DifScenarios	0.887	14	0.072
DifChallenges	0.889	14	0.079

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### 6.3.2 t-Test

The results yield that for the differences in the items CS (Current situation), Potential, Scenarios and Challenges, the significances are above p-value, therefore such items are distributing normally, and we can proceed with the t-test (Rivera Aragon & Garcia Mendez, 2012, p. 78). However, the item "Understanding" is not normally distributed. The researcher will take continue exploring all the items, with the awareness of this abnormality.

Once run the t-test, in following table, we can observe how the means are different in all the pairs (measurements before and after playing the EMG). However, this does not mean yet that such differences are significant.

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Understanding	3.79	14	0.579	0.155
	UnderstandingPost	3.93	14	0.616	0.165
Pair 2	Currentsituation	2.79	14	1.369	0.366
	CurrentsituationP	3.29	14	1.437	0.384
Pair 3	Potential	3	14	1.177	0.314
	PotentialP	4	14	0.679	0.182
Pair 4	Challenges	2.93	14	0.917	0.245
	ChallengesP	4.21	14	0.426	0.114
Pair 5	Scenarios	2.71	14	0.914	0.244
	ScenariosP	3.71	14	0.726	0.194

Descriptive statistics for the paired samples

In table below, we can prove if the differences in the means, displayed in table above, are significant. First, we take a look at the significance which must be minor than the p-value (0.05). In the table below, we can observe that the pairs are behaving differently. For pair one, which beforehand was not behaving normally, but still the researcher decided to explore it through the t-test, the significance is above the p-value (Sig. 0.5>0.05), the same case for item “current situation” (Sig. 0.346>0.05). For the items, potential, challenges and scenarios, the significance is below 0.05, meaning (Sig. 0.024<0.05), (Sig. 0<0.05) and (Sig. 0.013<0.05) respectively.

## Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Understanding	-0.14	0.77	0.206	- 0.588	0.302	- 0.69	13	0.5
Pair 2 Current situation	-0.5	1.912	0.511	- 1.604	0.604	- 0.98	13	0.346
Pair 3 Potential	-1	1.468	0.392	- 1.847	- 0.153	- 2.55	13	0.024
Pair 4 Challenges	-1.29	0.914	0.244	- 1.813	- 0.758	- 5.26	13	0
Pair 5 Scenarios	-1	1.301	0.348	- 1.751	- 0.249	- 2.88	13	0.013

Table 1 t-test for the awareness self-assessment

Therefore, we can argue that there was a significant change in the following items

- Potential: I can identify potential environmental sustainability strategies that might be useful for my organization
- Challenges: I can identify challenging environmental sustainability strategies that might be too difficult for implementation
- Scenarios: I can assess different environmental sustainability scenarios at my organization

Thus, the participants showed a significant change to identify potential environmental sustainability strategies that might be useful for their organization; they identify challenging environmental sustainability strategies that might be too difficult for implementation and, they can assess different environmental sustainability scenarios at their organizations.

As for the items “understanding” and “current situation” further development of the items and the identification of misleading activities during the EMG shall be further researched.

### 6.3.3 Descriptive information of the discussions

After the transcription of the discussion rounds into a word, the researcher tried to obtain some descriptive information about the discussion rounds. In the following table, the reader might observe the behaviour of the discussions.

Discussion round	Time	Number of interventions	Participant interventions	Researcher interventions (R)	Professor interventions (P)	Unidentified participant (UP)	Most participative stakeholder (total)	Less participative stakeholder (total)
1 "Building a vision GC"	13 min	63	31	25	3	4	Management (10)	Community (1)
2 "Introduction of costs"	29 min	78	47	22	5	4	Leadership (17)	Industry (2)
3 "Choosing EMS"	10 min	25	15	8	1	1	Community (4)	Students (1)
4 Feedback		6	NA	NA	Na	NA	NA	NA

Descriptive of the discussion rounds

Let us recall the categories of the arguments:

- Tacit knowledge awareness: the arguments are related with some sort of technical knowledge assumption (Boiral, 2002; Huang & Shih, 2009).
- Resources awareness: the arguments try to explore if there are benefits from the investment in environmental practices (Gadenne et al., 2009)
- Stakeholder awareness: the arguments towards sustainability are based on the relationship the action might have to reinforce or weaken a relationship with a particular group of stakeholders (Gadenne et al., 2009).
- Social needs awareness: the arguments make reference to the fulfillment of the basic needs to reach a sustainable society Broman and Robert (2017, p. 7),

In the following table, there are the frequencies of the arguments given by the stakeholder groups in every round.

Round	Tacit knowledge	Resources	Stakeholder	Social Needs
1 "Building a vision GC"	8	25	6	10
2 "Introduction of costs"	1	6	6	9
3 "Choosing EMS"	0	0	10	0
4 Feedback				

Categories frequencies in the discussion round given by stakeholder groups.

## 6.4 Recommendations

### 6.4.1 For the researcher

The EMG needs to be sharpened and piloted among real stakeholders to prove if as a training tool it promotes the practical dialogue among such stakeholders. The players might have been biased to participate due to the intervention of the professor and lack of experience of the researcher in intervention, therefore the results in a less supportive environmental might decrease unless systematic and deep improvements are done to the EMG tools.

In term of the design and the methodology, for further application of the EMG, the researcher shall ensure to match the instruments with the participation level during the discussion. A suggestion is to ask the participants to say at the beginning of every intervention their stakeholder role. This will allow exploring what are the correlations between the levels of participation with the actual results of the self-assessment instrument.

### 6.4.2 For university stakeholders

Although the game is framed as a simulation, it is remarkable to observe the distances of stakeholder groups due to power relations: while the leadership will always try to steer strategies toward a big vision (e.g., “to be a solar powered university), the students address needs (e.g., water dispensers to have quality fresh water”). The EMG was designed with the thinking in mind to provide everyone with the same weight of vote to take decisions and in consequence alleviate the relationships of power. It did not happen. Although the participants had the same number of votes, the limitation of the budget was another form of “limitation”.

For future research, we shall include to study the interactions, relations of power and possible flat or lean organizational structures which empower stakeholders to leverage discussions. As expressed by the participant in the feedback session, it might improve the discussion among less participative stakeholders if the “resources” and “gains” are also moral (e.g., by having water dispensers we ensure the fulfilment of the accessibility to water on campus VS having solar panels for the financial gain).

#### *6.4.3 For the HE sector*

Although extensive research is being done to understand the many complexities of HEI in environmental management and sustainability, maybe we should also look at the perceived relationships between stakeholders, what shapes them and how can we push significant collaboration among those that often do not interact.

Already stated by Brennan (2008), the agenda in higher education research shall look at the complex social systems, how they affect universities and the way they interact. Sustainability is a transversal topic that urges of complexity approaches not just to understand phenomena but also to predict future scenarios and the alternatives that universities shall demonstrate to keep their operations.

More and more regularly we hear of candidates of higher education that go for gap/volunteering gap years, study online, or launch their business ideas without the intervention of higher education institutions. This might be a natural side effect, but if the awareness of highly educated people raises questions towards the environmental sustainability value of the university, undoubtedly, it would have to rethink its environmental dimension.

Maybe, it is time to university management to even dive into the epistemology to understand itself at a substantial, ideological and rationale (Barnett, 2000).

#### *6.4.4 For the research of sustainability and environmental management in higher education institutions*

The research offered in this field is providing valuable information to guide initiatives; however, it would be interesting to observe the impact of Institutional Research in

sustainability. IR might be a potential space for the design of intervention in the higher education sector, altogether with the university's theory of change.

## 6.5 Bibliography

Alea, A. (2006). Diagnóstico y potenciación de la educación ambiental en jóvenes universitarios. *Odiseo, revista electrónica de pedagogía*, 3(6).

Altbach, P. G., & Engberg, D. (2001). *Higher education: A worldwide inventory of centers and programs*: Greenwood Publishing Group.

Armstrong, H., Darrall, J., & Grove-White, R. (1997). Maximising the local economic, environmental and social benefits of a university: Lancaster University. *GeoJournal*, 41(4), 339-350.

Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice*: Kogan Page Publishers.

Audretsch, D. B. (2014). From the entrepreneurial university to the university for the entrepreneurial society. *Journal of Technology Transfer*, 39(3), 313.

Balmer, J. M., & Gray, E. R. (1999). Corporate identity and corporate communications: creating a competitive advantage. *Corporate Communications: An International Journal*, 4(4), 171-177.

Barnett, R. (2010). *Being a university*: Routledge.

Barrow, C. J. (2005). *Environmental management and development* (Vol. 5): Psychology Press.

Baumgartner, R. J., & Winter, T. (2014). The sustainability manager: A tool for education and



training on sustainability management. *Corporate Social Responsibility and Environmental Management*, 21(3), 167-174.

Beringer, A., & Adom̃ent, M. (2008). Sustainable university research and development: inspecting sustainability in higher education research. *Environmental Education Research*, 14(6), 607-623.

Biasutti, M., De Baz, T., & Alshawa, H. (2016). Assessing the Infusion of Sustainability Principles into University Curricula. *Journal of Teacher Education for Sustainability*, 18(2), 21-40.

Birnbaum, R., & Edelson, P. J. (1989). How colleges work: The cybernetics of academic organization and leadership: Taylor & Francis.

Boiral, O. (2002). Tacit knowledge and environmental management. *Long range planning*, 35(3), 291-317.

Brennan, J. (2008). Higher education and social change. *Higher education*, 56(3), 381- 393.

Broman, G. I., & Rob̃ert, K.-H. (2017). A framework for strategic sustainable development. *Journal of Cleaner Production*, 140, 17-31.

Brundtland, G. H., & Khalid, M. (1987). Our common future. *New York*.

Cady, S. H., Wheeler, J. V., DeWolf, J., & Brodke, M. (2011). Mission, vision, and values: what do they say? *Organization Development Journal*, 29(1), 63.

Chapleo, C., & Simms, C. (2010). Stakeholder analysis in higher education: A case study of the University of Portsmouth. *Perspectives*, 14(1), 12-20.

Christie, B. A., Miller, K. K., Cooke, R., & White, J. G. (2013). Environmental sustainability

in higher education: how do academics teach? *Environmental Education Research*, 19(3), 385-414.

Clarke, A., & Kouri, R. (2009). Choosing an appropriate university or college environmental management system. *Journal of Cleaner Production*, 17(11), 971- 984.

Corcoran, P. B., & Wals, A. E. (2004). Higher education and the challenge of sustainability: Springer.

Costanza, R., & Patten, B. C. (1995). Defining and predicting sustainability. *Ecological economics*, 15(3), 193-196.

Cronemberger de Araújo Góes, H., Cronemberger de Araújo Góes, H., Magrini, A., & Magrini, A. (2016). Higher education institution sustainability assessment tools: Considerations on their use in Brazil. *International Journal of Sustainability in Higher Education*, 17(3), 322-341.

de Arraga, L. P. (1998). Fortalecimiento de la capacidad interdisciplinaria en Educación Ambiental. *Revista Iberoamericana de educación*, 16, 65-99.

de Queiroz Machado, D., Ney Matos, F. R., de Sena, A. M. C., & Rocha Ipiranga, A. S. (2016). Quadro de Análise da Sustentabilidade para Instituições de Ensino Superior: Aplicação em um Estudo de Caso. *Education Policy Analysis Archives*, 24.

Deterding, S. (2011). *Situated motivational affordances of game elements: A conceptual model*. Paper presented at the Gamification: Using game design elements in non- gaming contexts, a workshop at CHI.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). *From game design elements to gamefulness: defining gamification*. Paper presented at the Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments.

Deterding, S., Sicart, M., Nacke, L., O'Hara, K., & Dixon, D. (2011). *Gamification. using game-design elements in non-gaming contexts*. Paper presented at the CHI'11 extended abstracts on human factors in computing systems.

Disterheft, A., da Silva Caeiro, S. S. F., Ramos, M. R., & de Miranda Azeiteiro, U. M. (2012). Environmental Management Systems (EMS) implementation processes and practices in European higher education institutions—Top-down versus participatory approaches. *Journal of Cleaner Production*, 31, 80-90.

Dmochowski, J. E., Dmochowski, J. E., Garofalo, D., Garofalo, D., Fisher, S., Fisher, S., . . . Gambogi, D. (2016). Integrating sustainability across the university curriculum. *International Journal of Sustainability in Higher Education*, 17(5), 652-670.

Duarte, D. (2003). Ambientes de aprendizaje: una aproximación conceptual. *Estudios pedagógicos (Valdivia)*(29), 97-113.

Education, A. f. t. A. o. S. i. H. (2010). *Sustainability curriculum in higher education: a call to action*: Association for the Advancement of Sustainability in Higher Education, Denver, Colorado.

Etzkowitz, H. (2004). The evolution of the entrepreneurial university. *International Journal of Technology and Globalisation*, 1(1), 64-77.

Gadenne, D. L., Kennedy, J., & McKeiver, C. (2009). An empirical study of environmental awareness and practices in SMEs. *Journal of Business Ethics*, 84(1), 45-63.

Garris, R., Ahlers, R., & Driskell, J. E. (2002). Games, motivation, and learning: A research and practice model. *Simulation & gaming*, 33(4), 441-467.

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: a guide for non-

statisticians. *International journal of endocrinology and metabolism*, 10(2), 486.

Gray, D., Brown, S., & Macanufo, J. (2010). *Gamestorming: A playbook for innovators, rulebreakers, and changemakers*: " O'Reilly Media, Inc."

Griggs, D., Stafford-Smith, M., Gaffney, O., Rockström, J., Öhman, M. C., Shyamsundar, P., . . . Noble, I. (2013). Policy: Sustainable development goals for people and planet. *Nature*, 495(7441), 305-307.

Hernández Sampieri, R., Fernández Collado, C., & Baptista Lucio, P. (2003). *Metodología de la investigación* (Vol. 707): México: McGraw-Hill.

Hewitt, A. (2012). 2012 Trends in global employee Engagement. *Aon Hewitt Corp*, 18.

Huang, P.-S., & Shih, L.-H. (2009). Effective environmental management through environmental knowledge management. *International Journal of Environmental Science & Technology*, 6(1), 35-50.

Huizinga, J. (2014). *Homo Ludens* IIs 86 (Vol. 3): Routledge.

ISO, E. (2004). 14001: 2004. Environmental management systems-Requirements with *guidance for use (ISO 14001: 2004)*.

Jenks-Jay, N. (1999). Institutional commitment to the environment and sustainability: A peak of excellence at Middlebury College. *Sustainability and university life*, 149- 166.

Jones, D. R. (2015). Opening up the Pandora's box of sustainability league tables of universities: a Kafkaesque perspective. *Studies in Higher Education*, 1-24.

Jongbloed, B., Enders, J., & Salerno, C. (2008). Higher education and its communities: Interconnections, interdependencies and a research agenda. *Higher education*, 56(3), 303-324.

Junyent, M., & Ciurana, A. M. G. (2008). Education for sustainability in university studies: a model for reorienting the curriculum. *British Educational Research Journal*, 34(6), 763-782.

Juul, J. (2011). Half-real: Video games between real rules and fictional worlds: MIT press.

Kangas, M. (2010). Creative and playful learning: Learning through game co-creation and games in a playful learning environment. *Thinking skills and Creativity*, 5(1), 1-15.

Karpatschhof, B. (2013). Play, but not simply play: The anthropology of play *Children's Play and Development* (pp. 251-265): Springer.

Krishna, I. M., Manickam, V., Shah, A., & Davergave, N. (2017). *Environmental Management: Science and Engineering for Industry*: Butterworth-Heinemann.

Lafferty, W. M., & Eckerberg, K. (2013). From the Earth Summit to Local Agenda 21: working towards sustainable development (Vol. 12): Routledge.

Laredo, P. (2007). Revisiting the third mission of universities: toward a renewed categorization of university activities? *Higher education policy*, 20(4), 441-456.

Leal Filho, W., & Wright, T. S. A. (2002). 12. Barriers on the Path to Sustainability: European and Canadian Perspectives in Higher Education. *Note: Use 'Hyperlinks' to move to the section/paper you require and to 'return to contents.'*, 125.

Maragakakis, A., van den Dobbelsteen, A., & Maragakakis, A. (2016). Is Higher Education Economically Unsustainable? An Exploration of Factors that Undermine

Sustainability Assessments of Higher Education. *Discourse and Communication for Sustainable Education*, 7(2), 5-16.

Mayer, M. (1998). Educación ambiental: de la acción a la investigación. *Enseñanza de las ciencias: revista de investigación y experiencias didácticas*, 16(2), 217-232.

Misiaszek, G. W. (2015). Ecopedagogy and Citizenship in the Age of Globalisation: connections between environmental and global citizenship education to save the planet. *European Journal of Education*, 50(3), 280-292.

Morrow, R. A. (2006). Foreword. Critical theory, globalization, and higher education: Political economy and the cul-de-sac of the postmodernist cultural turn. *The university, state, and market: The political economy of globalization in the Americas*, 17-33.

Nicolaides, A. (2006). The implementation of environmental management towards sustainable universities and education for sustainable development as an ethical imperative. *International Journal of Sustainability in Higher Education*, 7(4), 414-424.

Pasek de Pinto, E. (2004). Hacia una conciencia ambiental. *Educere*, 8(24).

Pearce, J. A., & David, F. (1987). Corporate mission statements: The bottom line. *The Academy of Management Executive*, 1(2), 109-115.

Reeves, B., & Read, J. L. (2009). Total engagement: How games and virtual worlds are changing the way people work and businesses compete: Harvard Business Press.

Rivera Aragon, S. G. M., Mirna (2012). Aplicacion de la estadistica a la psicologia

Mexico City: Porrua.

Robèrt, K.-H. (2000). Tools and concepts for sustainable development, how do they relate to a general framework for sustainable development, and to each other? *Journal of Cleaner Production*, 8(3), 243-254.

Robèrt, K.-H., & Anderson, R. (2002). *The Natural Step story: Seeding a quiet revolution*: New Society Publishers Gabriola Island, BC.

Robèrt, K.-H., Broman, G., Waldron, D., Ny, H., Byggeth, S., Cook, D., Haraldsson, H. V. (2004). *Strategic leadership towards sustainability*: Department of Mechanical Engineering at BTH.

Robst, J. (2007). Education and job match: The relatedness of college major and work. *Economics of Education Review*, 26(4), 397-407.

Stallworth Williams, L. (2008). The mission statement: A corporate reporting tool with a past, present, and future. *The Journal of Business Communication* (1973), 45(2), 94-119.

Tangwanichagapong, S., Tangwanichagapong, S., Nitivattananon, V., Nitivattananon, V., Mohanty, B., Mohanty, B., . . . Visvanathan, C. (2017). Greening of a campus through waste management initiatives: Experience from a higher education institution in Thailand. *International Journal of Sustainability in Higher Education*, 18(2), 203-217.

Trencher, G., Terada, T., & Yarime, M. (2015). Student participation in the co-creation of knowledge and social experiments for advancing sustainability: experiences from the University of Tokyo. *Current Opinion in Environmental Sustainability*, 16, 56-63.

Trencher, G., Yarime, M., McCormick, K. B., Doll, C. N., & Kraines, S. B. (2013). Beyond the third mission: Exploring the emerging university function of co- creation for sustainability. *Science and Public Policy*, 41(2), 151-179.

Truss, C. (2001). Complexities and controversies in linking HRM with organizational outcomes. *Journal of Management Studies*, 38(8), 1121-1149.

Turan, F. K., Cetinkaya, S., & Ustun, C. (2016). A methodological framework to analyze stakeholder preferences and propose strategic pathways for a sustainable university. *Higher*

*education*, 1-18.

Ull Solís, Á. (2008). El impacto de la actividad universitaria sobre el medio ambiente. Van Weenen, H. (2000). Towards a vision of a sustainable university. *International Journal of Sustainability in Higher Education*, 1(1), 20-34.

Vaughter, P., McKenzie, M., Lidstone, L., & Wright, T. (2016). Campus sustainability governance in Canada: A content analysis of post-secondary institutions' sustainability policies. *International Journal of Sustainability in Higher Education*, 17(1), 16-39.

Vaughter, P., Wright, T., & Herbert, Y. (2015). 50 Shades of Green: An Examination of Sustainability Policy on Canadian Campuses. *The Canadian Journal of Higher Education*, 45(4), 81.

Velazquez, L., Munguia, N., Platt, A., & Taddei, J. (2006). Sustainable university: what can be the matter? *Journal of Cleaner Production*, 14(9), 810-819.

Velazquez, L., Munguia, N., & Sanchez, M. (2005). Deterring sustainability in higher education institutions: An appraisal of the factors which influence sustainability in higher education institutions. *International Journal of Sustainability in Higher Education*, 6(4), 383-391.

Vught, F. (2009). Diversity and differentiation in higher education. *Mapping the higher education landscape*, 1-16.

Wright, T., & Horst, N. (2013). Exploring the ambiguity: what faculty leaders really think of sustainability in higher education. *International Journal of Sustainability in Higher Education*, 14(2), 209-227.

y Gasset, J. O. (2014). *Mission of the University* (Vol. 17): Routledge.



Zhang, N., Williams, I., Kemp, S., & Smith, N. (2011). Greening academia: Developing sustainable waste management at Higher Education Institutions. *Waste management*, 31(7), 1606-1616.

## **7 Autonomy of Ethiopian Higher Education Institutions: Perception of Academics and Administrators (a case study of Jimma University)**

Yibeltal Ayalew Mengistu

### **7.1 Introduction**

Higher education (HE) has recently been going through substantial changes all around the world. The changes have been driven mainly by the changes in socio-economic and political systems. These changes have disposed the governments (or states) of many countries to improve and/or to design policies and programmes so as to transform their HE systems. One of the most important aspects of transformation, which is a commonplace all around the globe, is governance reform (Jongbloed, Enders & File, 2010). In order to be able to cope up with the changes, governments (states) need to reconsider their relationships with HEIs and so to change their steering mechanisms (Baschung, Goastellec & Leresche, 2011). Having understood this, governments have been devising new and/or revising their current HE laws and regulations. Of these, regulations that improve the autonomy of the HEIs have acquired a significant momentum as autonomy is considered to be important to achieve the HEIs' mission (Estermann & Nokkala, 2009).

It is believed that increasing autonomy improves the performance of HEIs (Enders, De Boer, & Weyer, 2013). The fact that autonomy has been taken as an important constituent for institutional development of HEIs (Estermann, et al., 2011), it has gained a great deal of attention among scholars in the area (Ren and Li, 2013). Consequently, being cognizant of this, governments have been transforming their HE systems to give more autonomy to the HEIs.

Likewise, with the aim of transforming HE, the Federal Democratic Republic of Ethiopia (FDRE) (the official name of the government of Ethiopia) enacted higher education proclamation in 2003 (FDRE, 2003) and later on amended it in 2009 (FDRE, 2009) to catch

up with the changes which have been taking place in the HE area worldwide. Ensuring institutional autonomy of HEIs was one of the specific objectives emphasised in these proclamations.

More specifically, with due consideration of efficiency and effectiveness, as well as transparency, fairness, and accountability, the higher education proclamation in 2003 and later on the revised proclamation in 2009 conferred autonomy to HEIs to develop curricula, administer personnel, finances, internal organisation, create linkages with national and International (governmental or non-governmental) organisations, etcetera (see Higher Education Proclamations No. 351/2003 and No. 650/2009). However, the question is that are HEIs able to use the autonomy given in the proclamation? May be or maybe not. Verhoest et al. (2004) argue that “formal legal status is not an appropriate measure of autonomy: there is no linear relation, heterogeneity within same formal legal status”. Similarly, having recognised the discrepancy, Salmi (2007; p. 241) suggests that “autonomy should not remain a concept that exists only on paper”.

Despite the fact that autonomy is legally provided, there are contentions among different researchers on the extent and effectiveness of the implementation of those autonomies granted on paper for HEIs in Ethiopia. Some argue that the autonomy granted in the proclamation is properly implemented, while others on the other spectrum contend that what is written on paper and what is being practiced on ground do not get along at all.

Raza, R. (2009), by asking the HE task manager of Ethiopia at The World Bank (WB) a simple yes/no questions, upholds that there is a significant amount of autonomy in public HEIs. However, Woldegiyorgis (2014) on the other hand, argues that although it seems to be improving, in practice universities do not have better autonomy than before; it is rather deteriorating from time to time. Akalu (2014) also contends that the autonomy of HEIs given in the HE proclamation is being trespassed in many ways by the Ministry of Education (MOE). It seems that the concept of autonomy, according to these arguments, is polarized as there is and there is no. However, autonomy needs to be operationalised and seen more thoroughly to get an insight into which part of autonomy and to what extent it is implemented and which aspects of the many are violated.

Some researchers have studied and tried to explain about Ethiopia's HEIs autonomy. Yizengaw (2003) describes that there is no full-academic autonomy in public universities. However, the researcher does not provide sufficient evidence from which and what perspective he elaborated autonomy. Mehari (2010) also studied institutional autonomy of one Ethiopian public HEI (Mekelle University). Mehari focuses on the relationship between the government and the university from the perspective of the university. However, his study does not explain the way by which the government limits the autonomy of the university.

Gebreyes (2015) in his PhD thesis titled: "Revenue generation strategies in sub-Saharan African universities" assesses the autonomy (focusing on the financial autonomy) of HEIs in Ethiopia and he found that there is no clear and equal understanding of autonomy among high level university management officials. Even though Gebreyes tried to differentiate the different dimensions of autonomy, the accuracy of measurement<sup>3</sup> technique he used was contentious.

Having referred the researches done thus far and as far as the researcher's knowledge is concerned; no sufficient research was conducted in detail about the extent of autonomy and the perception of academics and administrators on autonomy. Nor was there anyone who studied the implementation gap between the legal autonomy and practice. Thus, this research aims to analyse the perception of academics and administrators on autonomy in public higher education institutions taking Jimma University as a case in point.

## 7.2 Research questions

Based on the research problem and gap stated above, this part stipulates the following research questions addressed in the thesis. It contains one main question and four specific questions.

**Main question:** Is there a gap between the legal and factual autonomy of higher education

---

<sup>3</sup> The researcher used yes or no questions for each dimensions of autonomy to determine the availability and degree of autonomy. (see Gbreyes, 2015; p. 157-159)

institutions in Ethiopia?

### 7.3 Specific questions

The main question is broken down into the following specific questions in order to be able to investigate the issue in more detail.

- What is the extent to which the autonomy granted and the practice on the ground varies?
- Why the legal and real autonomy is different? if it is so
- How is the autonomy in the case university practiced? (Mechanisms of implementation)?
- What are the changes (trends) like?

### 7.4 Methodology

The study used a combination of both positivist and social-constructionist paradigms. Positivism (lately called post-positivism) is based on a priori theories. Positivist research likely follows a series of logically related steps and bases multiple perspectives from participants and use rigorous methods of qualitative data collection and analysis. The way of writing their qualitative studies is like that of quantitative approaches “(e.g., problem, questions, data collection, results and conclusions)”. Social constructivism, on the other hand, is where individuals seek understanding of the world in which they live and work. This approach enables researchers to develop meaning of things that lead to look for the complexity of a variety of views rather than a few categories or ideas. In this case, “the goal of research is to rely as much as possible on the participants' views of the situation” (Cresswell, 2007).

Therefore, this study followed both positivism and social constructionism paradigms. Because it is based on some theoretical foundations as positivist theory portrays and tried to construct some patterns of concepts and variety of views from the perspective of the interviewees as social constructionists enunciate.

This thesis employed qualitative case study design as a research strategy in order to address the research questions raised. Case study research is often conducted to identify and explain specific issues and problems of practice (Marriam, 1998). Yin (2003) defined a case study as “an empirical inquiry that Investigate a contemporary phenomenon with its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003; p. 13). He explains further that “case study allows investigators to retain the holistic and meaningful characteristics of real-life events such as individual life cycles, organizational and managerial processes, etcetera” (Yin, 2003; p. 2).

Accordingly, this thesis employed qualitative case study method to study the autonomy of Ethiopian HEIs, taking Jimma University as a case study unit. Jimma University, which is one of the public HEIs, was chosen as a case. This university was selected for epistemological reason. As Creswell (2007; p 34) suggests researchers should try to get as close as possible to the participants being studied; thus, the researcher chose the university he had worked for rather than other universities. Thus, the data were collected mainly from Jimma University as explained in the following paragraph.

In order to answer the research questions raised both primary and secondary data were used. It is suggested by distinguished case study researchers, such as Marriam (1998) and Yin (2003) and Stake (1995) that interview and document review are the most common methods of data collection. However, Marriam suggests more flexibility. Unlike experimental, survey or historical research, case study does not require a specific data collection method. Any method ranging from testing to interview can be used to gather data (Marriam, 1998). Due to the fact that this research is a qualitative case study, interview and document review was utilised to collect the necessary data.

Primary data were collected from Jimma University. In order to give more flexibility and to gather as much information as possible, semi-structured interview was used to collect the data from select academics and administrators at Jimma University.

Senior academic staff members hired several years before the current HE proclamation was amended in 2009 were targeted for the interview in order to get an insight into the trends of the autonomy observed before and after the law is implemented.

In qualitative research it is usually difficult to determine the sample size of the participants. Thus, a researcher should devise a systematic way of deciding on the number of respondents to get the required amount of information. Taking this into account, in this study, themes and patterns were identified during the interview process. And the number was restricted when the interviewees come to give the same, if not identical information. In other words, the sample size was systematically restricted to this number when it had reached to saturation. As (Fusch& Ness, 2015) state failure to reach data saturation has an impact on the quality of the research conducted and hampers content validity.

Accordingly, three vice presidents, two deans of colleges and two department heads and four academic staff participated in the interview.

Apart from the interview, data were collected from documents including the Ethiopian higher education proclamations and Jimma University's legislation. And the study used a combination of categorical aggregation and direct interpretation to analyse the data.

## 7.5 Key Findings

Ethiopia has recently made transformation to give autonomy to its higher education institutions. However, there have been different views on whether the given autonomy is implemented properly. There are several researches that show polarised conclusions as there is or there is no autonomy. Based on this background, this study tried to give an insight into institutional autonomy of HEIs in Ethiopia taking Jimma University as a case unit of analysis. Document review and interview data obtained from Jimma University were used for analysis. Thus, based on the data analysis the study found the following.

At Jimma University the institutional autonomy on paper and the practice on the ground are different. Furthermore, there are visible variations among the different dimensions of institutional autonomy. The university has relatively high degree of financial autonomy and lower autonomy of organisational, staffing and academic autonomy. The following paragraphs give the findings of each dimension of autonomy.

The organisational autonomy of Jimma University is hampered and restricted by the government legislation. There is a strong tie between the government and the university, and thus the organisational structure and governing body of the university is shaped based on the political interest of the government.

The organisational structure of Jimma University is predominantly shaped by the government's higher education proclamation. The higher education proclamation stipulates the elements to be incorporated in the organisational structure. Thus, Jimma University's autonomy to design its own structure is restricted by the government law.

In addition, although the proclamation gives a considerable amount of autonomy, in practice the governance and leadership structure is determined by the Ministry of Education. The board members and other higher-level leaders are appointed by the government based on their political stance.

In terms of financial autonomy, Jimma University receive almost all of its funds from the federal government on a block-grant funding system. The university is able to transfer funds internally from one unit to another when found necessary. However, it is required to use the money only based on the plan submitted in advance; new items cannot be added in the middle of the academic year. The university also generates income directly by providing services and the enterprises which are independent legal entities.

With respect to staffing autonomy, despite given autonomy to recruit its own staff, there were circumstances on which the ministry of education interfere and recruit academic staff on the university's behalf. The salary scale of the staff is determined centrally by the government, but there are some situation the university can determine some kind of remunerations, such as payment for teaching material preparation. Appointment and promotion of staff is also decided by the university based on the rules and procedures stipulated in the university's senate legislation.

The university was able to determine its academic programme. But recently, the Ministry of Education has been involved to harmonise the curriculum at the national level. So, the



university is able to design its own academic programme only if it is totally new programme. The student admission process is fully undertaken centrally by the Ministry of Education.

In general, there is relatively better degree of financial autonomy at Jimma University. Organisational, staffing and academic autonomies are relatively low. There is an improvement in financial autonomy. While other autonomies have seen a tendency to decline although the higher education proclamation claims the opposite.

Moreover, the study found that the government infringes the university's autonomy by using law and negotiations. All in all, the governments interference in the decision-making process has influenced the institutional autonomy of Jimma university.

## 7.6 Recommendations

Based on the finding of the study, the following possible recommendations are forwarded.

The government should improve the institutional autonomy of the HEIs by refraining its interference in the internal decision-making process of the universities by setting clear and appropriate accountability measures so that they will be able to contribute to the socio-economic development of the country. "Increased autonomy is necessary to enable institutions to innovate and differentiate, while system-oversight bodies hold institutions accountable for their performance in the use of public funds, in part through quality assurance mechanisms" (Saint, 2015; p. 14).

In addition, the government should give directives and guidelines so that misunderstandings and gaps in the law and implementation can be reduced.

The government should involve individuals in the higher-level leadership positions of the universities irrespective of their political view. The government would rather create another mechanism like that of accountability measures to ensure the achievement of the macro level strategies and policies.

On the other hand, the university should put pressure on the government to relax some of its rules and to respect the given legal autonomy. More specifically, the university should try to put pressure to incorporate different stakeholders in their governance and leadership structure to be able to make better decisions.

## 7.7 Limitations and further research directions

Although their general characteristics are similar, the conclusions may not be generalised to all public HEIs in Ethiopia due to some differences in specific features of individual universities. For example, the time difference when they were established may affect their decision-making capacity.

An unavailability of sufficient empirical literature in related areas of interest in Ethiopian context was also another important challenge for this study.

Even though specific details on the different dimensions of autonomy are explained, It is not easy to measure the extent of autonomy, nor difficult to say yes there is or there is no.

The researcher would like to recommend further research on institutional autonomy of two or more universities to get more insight into the gap in the implementation from different organisational perspective. In addition, the impact of autonomy on the performance of HEIs in Ethiopia is also worth researching.

## 7.8 References

Akalu, G. A. (2014). Higher education in Ethiopia: expansion, quality assurance and institutional autonomy. *Higher Education Quarterly*, 68(4), 394-415.

Baschung, L., Goastellec, G., & Leresche, J. P. (2011). Universities' Autonomy in Times of Changing Higher Education Governance: A study of the Swiss academic labour market. *Tertiary Education and Management*, 17(1), 51-64.

Creswell, J. W. (2007). *Qualitative enquiry and research design: Choosing among five*

approaches. Sage publications.

Enders, J., De Boer, H., & Weyer, E. (2013). Regulatory autonomy and performance: The reform of higher education re-visited. *Higher education*, 1-19.

Estermann, T., & Nokkala, T. (2009). *University autonomy in Europe: exploratory study*. Brussels: European University Association.

Federal Democratic Republic of Ethiopia [FDRE].(2003). Higher education proclamation No. 351/2003. Federal NegaritGazeta 9(72), 2235-2263.

Federal Democratic Republic of Ethiopia [FDRE].(2009). Higher education proclamation No. 650/2009. Federal NegaritGazeta 15(64), 4976-5044.

Fusch, P. I., & Ness, L. R. (2015). Are We There Yet? Data Saturation in Qualitative Research. *The Qualitative Report*, 20(9), 1408-1416. Retrieved from <http://nsuworks.nova.edu/tqr/vol20/iss9/3>.

Gebreyes, F. M. (2015). Revenue generation strategies in sub-Saharan African universities. UniversiteitTwente.

Jongbloed, B., Enders, J., & File, J. (2010). Progress in higher education reform across Europe. Governance Reform. Volume 1: Executive Summary main report.

Mehari, Y. H. (2010). Governance in Ethiopian higher education system: state-higher education institutions relationship, the case of Mekelle University.

Merriam, S. B. (1998). Qualitative Research and Case Study Applications in Education. Revised and Expanded from " Case Study Research in Education." Jossey-Bass Publishers, 350 Sansome St, San Francisco, CA 94104.

Raza, R. (2009). Examining autonomy and accountability in public and private tertiary institutions. *Human Development Network: World Bank*.

Ren, K., & Li, J. (2013). Academic freedom and university autonomy: A higher education policy perspective. *Higher Education Policy*, 26(4), 507-522.

Salmi, J. (2007). Autonomy from the state vs responsiveness to markets. *Higher Education Policy*, 20(3), 223-242.

Verhoest, K., Peters, B. G., Bouckaert, G., & Verschuere, B. (2004). The study of organisational autonomy: a conceptual review. *Public administration and development*, 24(2), 101-118.

Woldegiyorgis, A. (2014). The question of academic autonomy in developmental states. *The Re- porter Newspaper vol. IXI, No. 945*. Addis Ababa Ethiopia.

Yin, R. K. (2003). Case study research design and methods third edition. *Applied social research methods series*, 5. Sage publications.

Yizengaw, T. (2003, September). Transformations in higher education: Experiences with reform and expansion in Ethiopian higher education system. In *Keynote speech presented at the Africa regional training conference entitled Improving Tertiary Education in Sub-Saharan Africa: Things that Work* (pp. 23-25).

## 8 Integration of Refugees in Austrian Universities

Ola Mostafa

### 8.1 Study background

My master thesis topic is mainly about the process of integrating refugees into European higher education systems. It is claimed that there are about 450,000 who are between the ages of 18 and 22 out of an estimated four million refugees. Moreover, the UNESCO Institute for Statistics estimates that approximately 90,000-110,000 Syrian refugee youth are qualified for higher education, yet fewer than 6% are actually enrolled (UNESCO, 2014). In Europe, many countries grapple with the fast number of refugees coming to them and they are trying to find ad hoc solutions the problem of helping refugees to continue their education. However, some of these short-term solutions are not beneficial for displaced refugees' students who have aspirations to stay and have a better future in the host country.

Refugees and forced migration studies, which widely cover various sectors such as refugees, asylum seekers, internal displacement, development induced displacement, has recently considered of a critical and highly sensitive political issue, relatively after the Cold War (Castles, 2003). The scope of forced migration encompasses different aspects such as economy, sociology as well as humanitarian studies. Thus, it has been crucial among researchers to understand the complex relationship among all these aspects when it comes to understanding the issue of forced migration (Jacobsen, 2003). The aftermath of being displaced as a human being from his/her own home country has an impact on several dimensions in everyday life. A displaced person, regardless internal or external, has to face difficulties to adjust and adapt to new surroundings and circumstances (Paludan, 1981). Unfortunately, in many cases, this displaced person has to accept the fact that being resettled in a new setting requires time. Sometimes, people who seek asylum, for example, have to change their residence many times till they can be eventually relocated in a permanent place which results in delaying the process of adaptation.

## 8.2 Problem statement

Many European countries considered this matter of refugees' integration which is called also 'civic integration' as a priority in their political agenda. Thus, access to higher education for refugees is supposed to be a crucial attempt to better integrate them in the society. Many politicians even suggest that the integration of refugees in higher education would prevent them from participating in radical violence attacks and will help them to be better citizens. Many stakeholders are involved in establishing constructive solutions to this dilemma. The European Union holds the responsibility towards the State Members, especially when it comes to policy-making.

Other stakeholders are university leaders who should exert some efforts towards changing the organization culture of European universities that would enhance better educational opportunities for refugees' students. European universities should develop strategic plans which involve all stakeholders in order to come up with comprehensive agenda that facilitate the process of refugees' integration. Most importantly is the position of refugees both students and academic staff in understanding the dimension of their integration in the educational systems. As main stakeholders, they have to acknowledge their roles and responsibilities since they are in a better position to identify their educational needs.

Most of the relevant work that has been done related to the issue of refugees' integration is mainly with a broader focus on international students. Since the movement of forced migration started in Europe recently, after the Arab Spring, there are few relevant articles related to that matter. Personally, I am more interested to tackle the integration of refugees who mainly come from Arab countries or Africa so that I can easily understand their circumstances and cultural values. Syrian refugees in particular became of a huge interest for researchers in Europe due to the vast number of people who fled to Europe after the Syrian war.

## 8.3 Research question

The research question is 'How to prepare recent Arab refugees for better integration in Austrian universities?' Within the scope of my thesis topic, I aspire to analyse the factors that enhance the retention of under-represented students who comes from traumatic conditions, in

that case, warfare. Being a part or a witness of war is atrocious life experience that can dramatically change the pace of someone's life (Lifton, 1992). A person who chose to leave his country to seek haven in a more peaceful destination is more likely to be vulnerable when facing more difficulties in his life. Thus, considering the obstacles that one will face if decides to continue his interrupted education to ensure better chances for himself in the future.

Based on the research question, clarification of all the dimensions and factors that would facilitate the process of integration as well as the obstacles that the Arab refugee students might face during their study period are to be presented. There are some sub-questions that I need to consider within my topic which are the following:

How can refugees have access to degree/non-degree programmes in Austrian universities?

How do national, and institutional initiatives support the welfare of refugees before and during higher education system?

What are the methods that are currently used to integrate refugees in the academic sphere in Austrian universities?

What are the methods that are currently used to integrate refugees in the social aspect of Austrian universities?

How do universities cooperate to prepare refugees and integrate them into the higher education sector?

## 8.4 Theoretical Framework

Based on Tinto (1975) student integration model, which is the model utilized for this study, there are two main factors: academic and social integration. In this model, the more student is well- integrated in the learning process as well as the university campus, the more likely the completion rate of that student will be higher. There has been many adjustments and changes that occurred to Tinto's student integration model in the past 35 years. One major enhancement has been adding other factors in relation to motivation which is goal commitment. Retention theories in general has gone through some intervention from other disciplines like educational psychology and social psychology which clearly borrowed some external factors that would affect the persistence of students with a university. Moreover, there are other theories that have been compiled, for example, attribution theory, goal setting theory, expectancy theory, self-efficacy beliefs, academic self-concept, etc. These theories

have added value to better understand the reasons behind dropouts from higher education (Demetriou, 2011).

## 8.5 Methodology

Through this study, the research design relies on a relevant framework that has similarities with the case study intended to be investigated. The outcomes of this study should draw a clear image on the discrepancies between integration of international students who chose willingly to study in a different educational setting and refugees who were forced to immigrate to another country. Consequently, this study could be considered as a grounded theory research design since the results and findings of this study should establish a new theory to understand the process of integrating refugees in the Austrian Higher education system.

Second, the same study can be identified as ‘Ethnographic design’ which is ‘qualitative research procedures for describing, analysing, and interpreting a culture-sharing group’s shared patterns of behaviour, beliefs, and language that develop over time’ (Creswell, 2012). In this research, specific target group is being investigated which is ‘Arabic refugees’ who recently arrived in Austria after the Syrian war. Thus, a group of people who belong to the same culture and share certain values are the aim of this study.

Another aspect is the choice of qualitative research for this study. Qualitative methodology refers to research that is designed to produce descriptive data which could be deduced from people’s words, written materials, or observed behaviours (Taylor, S. J., Bogdan, R., & DeVault, M., 2015). The research of this study about integration of Arab refugees is concerned about understanding the perception of the process of integration from the students and observe their attitudes towards the current procedures followed by different institutions to promote integration in higher education. Thus, the choice of qualitative method for this study is adequate to the nature of the research.

In this thesis, the data collection process as well followed the same pattern mentioned above. In the first stage, recording information has been done through conducting individual interviews with students who come from refugee background and have the willingness to continue their studies in Austrian universities along with current students who already have



their asylum-seeking status. Another target group was administrators and professors that deal with recent students who are refugees.

## 8.6 Key findings

### 8.6.1 *Student background*

In the light of the significance of the impact of the student's background, it is crucial to underline the different facets that constitute the pre-college' experience of the students. One of the aspects is the age difference and how it could affect the motivation of the student towards his/her educational goals. Another aspect is the country of origin and the background culture of the student that abundantly formulate the student's expectations for his/her studies. In addition, family conditions and support for the student play a vital role in shaping the decision of the student's education; for instance, institution's choice, specific field of study, or even retention in education.

Referring to age, there are four students belong to the category of traditional students where their age range from 20 years to 23 years, while the other four students are non-traditional students. Correspondingly, the main discrepancies that are identified between traditional and non-traditional students are in relevance to their academic performance (Eppler, M. A., & Harju, B. L., 1997). In regard to traditional students, the dire demand of the labour market to hold a university degree in order to be able to compete among other graduates for a well-paid job necessitate their decision of university's participation and retention.

Concerning family support, among the participants of interview, three students out of eight currently live with their families. Having their families provide resilient support them to endure the difficulties they encounter during their different educational experience. As stated by one interviewee 'My parents' main reason behind their journey to Austria was to provide us with better educational opportunities' (Student 3, 2<sup>nd</sup> of April 2017, personal interview). For other refugees, they also aspire to complete their education in Austrian universities to dedicate their personal success to their families back in their home countries.

In reference to student's pre-schooling, most of the students had previous university experience, either completed degree or interrupted study period. Two out of eight students

managed only to accomplish their high school diploma. Study success of these students mainly relies on the elementary and secondary level of education obtained earlier. Early schooling system definitely prepares students for university level through having a minimum knowledge of all major subjects (Helgeson, 1977).

### *8.6.2 Student's Commitments: Educational goals and institutions*

Half of the refugees that I have interviewed are currently students in 'Vorstudienlehrgang der Wiener Universitäten' (VWU) which is university preparation programme of the Vienna Universities. It is a university preparation course that under the supervision of the OeAD-GmbH (Austrian Agency for International Cooperation in Education and Research – OeAD-GmbH) and in cooperation with other six universities of Vienna. There are three main goals that VWU aspires to achieve through these preparation courses provided to international students; to help with integration, provide expertise education, and act as bridge-building for those students. In this institution, international students, in general, take some preparation courses before their actual enrolment in any Austrian university. Its main role is to assist students with academic preparation for supplementary examinations that some students have to pass through before they join the university. All courses that are offered in VWU are intensive ones; mainly German language, along with English language, Mathematics, Physics, Chemistry, Biology, History, and Geography (OEAD, 2017).

A group of refugees that were interviewed has encountered a situation of no educational institution choice. These students, after showing the intention to join higher education, applied for admission in certain Austrian universities. The universities' administrations, after processing their applications, advised them to take preparation courses in Vorstudienlehrgang der Wiener Universitäten' (VWU). As explained before, it is an institution that is specialized in preparing foreign students to study in Austrian universities. Thus, these students had almost no choice before enrolling in VWU, however, they definitely have the choice when they join universities based on their preferences and qualifications.

### *8.6.3 Academic integration*

According to Tinto's (1975) student integration model, academic integration of the students depends on three main pillars; the grade performance of the students and their intellectual development, and formal interaction with academic staff for educational support. Within this

study, students were asked to state their current study performance in Austrian educational institutions as well as do a comparison with their past learning experiences and grade performance in their home countries.

Some students have explained that, based on their field of studies, they encounter difficulties during the learning process. For some, they re-read the information in the textbooks or from the lecture notes more than once in order to understand well the new concepts. For other students, the university system and the new learning environment influence their academic performance. One student clarifies that 'In Syria, my study performance was good, and I did not have any difficulties during my studies there. But in Austrian university, I always felt that I do not belong to the studies. Most of the tasks and assignment were challenging for me' (student 5, personal interview, 25<sup>th</sup> of May 2017).

#### *8.6.4 Social Integration*

Measuring social integration in this study relies on three aspects; campus facilities, peer interaction, and extra-curricular activities conducted mainly for integration. Based on previous studies conducted on student retention and the direct relation with the use of facilities that are provided through the university service reveals that students with low grade performance or student who dropped out were more prone to not to use campus facilities than other (Churchill, 1981).

The pre-college students group have relatively shown less interest in campus facilities. They claim that VWU is similar to university environment, nevertheless, there are many discrepancies that they acknowledge. They do not have various support facilities as they aspire for as higher education students. Referring to VWU, facilities are not that comprehensive as similar to actual campus services. For refugees who are currently registered as university students, they have different point of views when it comes to university facilities. Most of the students conform that their university provide many facilities and services, not only as refugees but for all students. However, many of refugees tend not to use these facilities because of the language barrier. For other students, they were highly satisfied with the e-learning platform that provide academic facilities.

## 8.7 Recommendations

Since the purpose of this study is to investigate the current methods that are practiced in Austrian higher education system to prepare students with refugee's background to better integrate in the system, the suggestion for best practices is based on literature and actual experiences. The recent influx of refugees caused some hurdles for higher educational institutions. The lack of readiness to deal with new target group of students, refugees, who requires specific measures and methods due to the personal dilemma they have been through brings about inefficiency in respond to this crisis from the institutional level. Universities as well as preparatory programmes encounter the challenges of integrating these students into the educational system.

Although this study is based on Tinto's Student Integration Model (1975), the institutionalization and practice of this theory will not be utterly applicable in the refugees 'case. A criticism that can be directed towards the relevance of Tinto's model to the integration of refugees is the absence of the psychological aspects. Refugees passed through severe calamity in their home country and on their journey to the host country. Thus, the psychological health of the students is crucial to be examined to ensure the efficiency of the integration process in the higher education system.

The recommendations proposed in this study depict stages that both the institutions and students should pass through with regards to the effectiveness of the integration procedures. There are four stages through which the integration process can be achieved. The stages are personal attributes analysis, academic consultation, academic and social preparation, academic and social integration, and monitoring for retention. In each stage, there are some variables identified that ensure the efficacy of the processes that the student with refugee's background takes part in. In all the stages, it is required from the university or preparatory programs or any other projects to allocate the proper time span for the implementation. Moreover, it is crucial to argue that more variables can be applicable for practice in each stage that differ from one institution to another. However, it is the responsibility of the university' administrator to identify the relevant variables according to their organization's culture.

## 8.8 References

Castles, S. (2003). Towards a Sociology of Forced Migration and Social Transformation *Sociology*, 13-34.

Churchill, W. D. (1981). College attrition, student use of campus facilities, and a consideration of self- reported personal problems. *Research in Higher Education*, 353-365.

Creswell, J. W. (2012). Qualitative inquiry and research design: Choosing among five approaches. Sage publications.

Demetriou, C. & S. (2011). Integration, motivation, strengths and optimism: Retention theories past, present and future. *In Proceedings of the 7th National Symposium on student retention*, 300- 312.

Eppler, M. A., & Harju, B. L. (1997). Achievement motivation goals in relation to academic performance in traditional and nontraditional college students. *Research in Higher education*.

Helgeson, S. L. (1977). The Status of Pre-College Science, Mathematics, and Social Science Education: 1955-1975. *Science Education*.

Jacobsen, K. & (2003). The dual imperative in refugee research: some methodological and ethical considerations in social science research on forced migration. *Disasters*, 185-206.

Lifton, R. J. (1992). Home from the war: learning from Vietnam veterans; with a new preface and epilogue on the Gulf War. *Beacon Press*.

Paludan, A. (1981). Refugees in Europe. *The International Migration Review*, 69-73.

Taylor, S. J., Bogdan, R., & DeVault, M. (2015). Introduction to qualitative research methods: A guidebook and resource. John Wiley & Sons.

UNESCO. (2014). Refugees in higher education.

## 9 Autonomy of Higher Education Institutions in Kazakhstan:

### Case Study of Public and Private University

Altynay Mustafina

#### 9.1 Background

For the last decades the role of institutions of higher education has increased as a consequence of globalization. It is observed through increased expansion of tertiary education systems (mass education), diversification of provision with the increase rate of private institutions (privatization), new modes of education services delivery (the rise of information and communication technologies) and internationalization (Altbach, Reisberg, & Rumbley, 2009; Hénard & Mitterle, 2010). These factors increased competitiveness of knowledge production industry at national and international markets. In order to survive, higher education institutions (HEIs) need to strengthen their institutional leadership and governance structures. Meanwhile higher education governance is multifaceted due to a range of institutional issues such as a balance of autonomy (Christensen, 2011), decision-making processes (Bray, 2010), and the pressures of globalization and internationalization on institutional life (Dobbins, Knill, & Vögtle, 2011). The complexity of HE governance is characterized with its two levels internal (institutional) and external (system). Internal governance refers to the institutional arrangements within universities (e.g., decision-making processes, financing and staffing), whereas external governance refers to the institutional arrangements on the macro- or system-level (e.g., laws and decrees, funding arrangements, evaluations) (OECD, 2008). These two concepts are interconnected via internal institutional policies (decision-making process, lines of authority, staffing and financing) and macro- and system levels in regards of laws, decrees, regulations and quality assurance standards (Van Vught, 1993, p.12). As a result of this interconnection, both of these concepts play a key role in fostering institutional autonomy (IA).

The focus of the present study lies in analysis of a degree of institutional autonomy in accordance of four areas of institutional autonomy and their indicators utilizing a single case study research strategy based on Astana Medical University joint-stock company (AMU JSC).

This university is neither private nor public after undergoing the process of corporatization when a part of shares are sold out to private business, industry, organizations and individuals. In fact, corporatization implies that up to 35% of shares belong to private sector (National Erasmus+ Office, 2017a). This process of corporatization took place after adoption the Concept on Privatisation of Objects of Education and Science for 2000-2005, which legitimized a shift of a number of public institutions towards business-like organizations of higher education (joint-stock companies) by means of public-private partnerships (Government of RK, 2003). On the state of March 2016, there are 18 joint stock companies in Kazakhstan. The rationale to corporatize public institutions was to establish market relations in public sector, to foster competitiveness and increase quality of education. Additionally, it led to reduction of financial burden from government as a sole financier of higher education. Those institutions that underwent corporatization, in fact, have obtained “increased independence from government administrative regulations and the possibility of adopting more flexible management practices” (OECD-World Bank, 2007, p.86). Another peculiarity of JSC is that it is a for-profit legal entity, whereas national and state universities (public universities) are non-profit organizations. This stipulates that joint-stock company enjoys all benefits of financial autonomy that may guarantee staffing, organizational and academic autonomy. Hence, freedom in deciding financial issues is considered as essential to ensure university autonomy due to its direct and indirect influence on the rest types of autonomy (Estermann, Nokkala, & Steinel, 2011). Due to a hybrid nature of JSC, it is important to understand that both public and private higher education institutions are regulated by similar regulations established by the Ministry of Education and Science of Kazakhstan (MES) or other line ministries. Therefore, private universities are on an equal footing with public universities and holding a license is required, since all universities are subject to regular attestation and accreditation (National Erasmus+ Office, 2017b). Additionally, in accordance with the State Programme on Education Development in RK for 2011-2020 (SPED) all Kazakhstani HEIs have to shift toward university autonomy by 2020. Therefore, the purpose of the present master thesis is to examine the extent of institutional autonomy at Astana Medical University JSC using both primary and secondary resources to measure and score each type of institutional autonomy, and afterwards to compare them to find out which of these areas are the most restricted. The results of research will help to understand what major obstacles impede transition of Kazakhstani universities to more autonomous governance.

Thus, the research questions are as follows:



1. What is the level of autonomy at Astana Medical University JSC (AMU JSC) in terms of four areas of institutional autonomy (academic autonomy, financial autonomy, staffing autonomy and organizational autonomy)?
2. Which type of institutional autonomy is the most constrained and why?
3. What is the state-university relations based on the single case study of AMU JSC?

## 9.2 Theoretical background

The shift from state controlled universities to self-regulated ones has evolved a new type of state-university relations that resulted in emergence of ‘supervising state’ (Van Vught, 1989). That change has resulted in the governmental position to steer the HEIs ‘from a distance’ fostering their institutional autonomy. Thus, the state supervised system implies institutional autonomy, while state-controlled system reduces academic freedom and institutional autonomy. Similarly, Zgaga (2006, p.39) has identified three structural dimensions of higher education governance:

- Internal or institutional higher education governance: governance of higher education institution;
- External or systemic higher education governance: governance of higher education systems. For example, higher education of Kazakhstan;
- International or global higher education governance: governance of higher education systems within an international (global) perspective, e.g., the Bologna Process.

Based on this governance typology, apparently university autonomy belongs to institutional higher education governance. Hence, revenues generation and funding allocation, staffing and organizational issues as well as decision-making processes take place within an institution while these internal policies are affected by national and supranational regulations. This justifies a direct link between institutional higher education (HE) governance and institutional autonomy.

IA is considered as a fundamental principle and is defined as the freedom of an institution to run its own affairs without direction or influence from any level of government (Anderson &

Johnson, 1998). In other words, institutional autonomy determines the degree of freedom of the institution to steer itself (Askling, B.; Bauer, M.; Marton, 1999 quoted by Bladh, 2007, p.244). Another definition states that institutional autonomy is "...a condition where academia determines how its work is carried out ..." (Neave & Van Vught, 1994, p.295). Consequently, this term refers to the freedom and authority enjoyed by institutions of higher education to play their role and contribute to societal development within a framework provided by public authorities (Varghese & Martin, 2014, p.22).

Despite academic freedom and institutional autonomy, the state's role is not undermined. Rather, it plays a crucial role than ever in higher education coordination. It ensures transparency of institutions by setting regulatory frameworks aligned with the national goals and missions of the institutions. In this regards, institutional autonomy is not static, rather dynamic depending upon regulations and policies at national and international levels. Institutional autonomy is multi-dimensional due constantly changing economic and political imperatives within which higher education systems develop. Accordingly, it is relevant to consider institutional autonomy in terms of state-university relationship (Estermann & Nokkala, 2009). Hence, university autonomy refers to changing relations between state and higher education institutions and a degree of control exerted by state, depending on a national context and circumstances (Estermann & Nokkala, 2009, p.6-7). In other words, due to existing limitations in state-university relationship, it is reasonable to analyse institutional autonomy based on key strategic functions of institutions: decision-making on funding allocation, operational management and academic affairs. For the purposes of the present study, the degree of institutional autonomy based on a case study university will be examined by utilizing four criteria of institutional autonomy as organizational autonomy, financial autonomy, staffing autonomy and academic autonomy (Estermann & Nokkala, 2009; Estermann et al., 2011; Nokkala & Bladh, 2014):

- *Organizational autonomy* stipulates the university's ability to decide freely on its internal organisational structures and institutional governance, in particular, the ability to establish structures and governing bodies and university leadership (Estermann & Nokkala, 2009). Alternatively, it implies the university's freedom to determine its own structure, governance and relations of subordination and responsibility (Turcan & Bugaian, 2014, p.23). **The aim of this dimension of autonomy is to give an insight**

on a capacity for internal administrative decisions.

- *Financial autonomy* refers to the university's ability to decide independently on its internal financial matters (Estermann & Nokkala, 2009; Estermann et al., 2011). Ability to manage funds freely enables an institution to set and realise its own strategic aims without external guidelines. The purpose of this dimension of autonomy is to determine a type of public funding allocation whether it is a *line-item budget* or a *block grant*. The ability to **keep a surplus** and **borrow money from financial markets** facilitates long-term financial planning and provides universities with flexibility to realize strategic goals in the most suitable way. Likewise, the data on institutional capacity to **own university-occupied buildings and premises** empowers HEIs to set up institutional and academic profiles.
- *Staffing autonomy* is defined as a right of HEI to develop and implement its own recruitment, salary and promotion strategies and operating procedures (Turcan & Bugaian, 2014, p.26). The competitiveness of higher education institutions at national or global level is essential to be able to **select and hire qualified academic and administrative staff** without external interference. Alternatively, capacity to **determine salary levels** is of paramount importance when attempting to attract the best international workforce. Ability to **promote and dismiss personnel** freely enhances the institution's flexibility providing it with a competitive advantage with regard to staffing affairs.
- *Academic autonomy* deals with defining an academic profile, introduction or termination of degree programmes at bachelor, Master's and doctorate levels, defining the structure and content of degree programmes, roles and responsibilities with regard to the quality assurance mechanisms and the extent of control over student admission procedures (Estermann & Nokkala, 2009). In other words, academic autonomy is the university's capacity to decide on degree supply, curriculum and methods of teaching on areas, scopes and methods of research to define their academic profiles, ability to introduce or terminate degree programmes and powers to decide on structure and content of academic programmes.

### 9.3 Methodology

The study on examining institutional autonomy of AMU case study employs the mixed research method utilizing both qualitative and quantitative research strategies to ensure deep and comprehensive analysis of the research problem. The research is based on sequential exploratory strategy that prioritizes qualitative data collection over quantitative ones (Creswell, 2013). It takes place in two phases. First, the qualitative data is collected via an overview of secondary resources gathered via a review of national strategic plans and reports, decrees, laws, policy regulations on higher education arrangements and higher education organizations, internal institutional documents. The processed secondary data is further used to conduct face-to-face interviews with semi-structured questionnaires widely used in qualitative research. The time period for interviews was scheduled from December 2016 to January 2017 with validation of interview transcripts up to April 2017.

For the purposes of the first phase, it is preferential to apply purposeful sampling. The latter is defined by Yin (2011, p.311) as “The selection of participants or sources of data to be used in a study, based on their anticipated richness and relevance of information in relation to the study’s research questions”. The advantage of this approach is that since experts tend to be more familiar with the subject matter than non-experts, opinions from a sample of experts are more credible than a sample that includes both experts and non-experts (Bhattacharjee, 2012, p.69-70). Therefore, academic staff and students were not included in the study on institutional autonomy of AMU JSC. On the contrary, the sample size comprises nine respondents from a number of senior administrative and managerial personnel as well as senior academic staff of AMU.

The second phase of research is based on calculation the highest level of autonomy of HEI to decide on academic, financial, staffing and organizational issues. Therefore, the scoring system is based on 5-2,5-0 point scale. In other words, if HEI makes an independent decision in matters concerning all four types of autonomy without interference from the external authority (Ministry of Health or Ministry of Education and Science), the value is scored 5 points since it is the highest degree of autonomy. But, if two actors are involved in decision-making processes, for instance, universities select the executive head, but the external authority validates the decision. In this case, the capacity of an institution to decide is shared by two authorities and thus, the score is equal to 2,5 points. If only the external authority

makes a decision on issues concerning institutional autonomy, this says about limited institutional capacity to decide. Accordingly, it is measured as 0. This is demonstrated on the Table below.

Table 1. The values of scoring system

Type of autonomy	No. of indicators	Max. points	Average points	Min. points	Denominator
Organizational	4	20	10	0	100%
Financial	5	25	12,5	0	100%
Staffing	2	10	5	0	100%
Academic	5	25	12,5	0	100%

From the Table above, it is clear that four types of IA have various numbers of indicators. For instance, organizational autonomy has four indicators and staffing only two of them, whereas both financial autonomy and academic autonomy have 5 indicators (See Table 2). Due to this difference, it may compromise the whole study and lead to unreliable research. Therefore, it is relevant to calculate the degree of institutional autonomy using a denominator (100%) to achieve credibility of measurement that equalizes final scores of four types of institutional autonomy.

#### 9.4 Key findings

The degree of autonomy at AMU deviates in a range from minimum 60% to maximum 80%, or in aggregate it is around 69%. The most restricted areas of institutional autonomy are organizational autonomy and financial autonomy (See Table 2).

Table 2. Overall scores in percentage on each type of institutional autonomy at AMU

<i>Organizational autonomy</i>	<i>Point</i>	<i>Financial autonomy</i>	<i>Point</i>	<i>Staffing autonomy</i>	<i>Point</i>	<i>Academic autonomy</i>	<b>Point</b>
Selection of the executive head: selection	0,0	Allocation of public funding	0,0	Capacity to decide on senior	2,5	Capacity to decide on selection	2,5

criteria, term of office and dismissal procedures		(type and length of public funding)		academic staff (recruitment, promotion, salary and dismissal)		and student numbers at BA, MA and PhD levels	
Inclusion and selection of the external members in governing bodies	2,5	Capability to keep a surplus from public funding	0,0	Capacity to decide on senior administrative staff (recruitment, promotion, salary and dismissal)	5,0	Ability to introduce and terminate degree programmes (BA, MA, PhD)	5,0
Capacity to decide on academic structures	5,0	Ability to borrow money	5,0			Ability to select the language of instruction	5,0
Capacity to create legal entities	5,0	Capability to own buildings	5,0			Capacity to design the content of degree programmes at BA, MA and PhD levels	5,0
		Ability to charge tuition fees for national and foreign	5,0			Capacity to select quality assurance mechanisms and providers	2,5

		students (BA, MA, PhD)					
<b>Total score:</b>	12,5		15		7,5		20
<b>In percentage:</b>	62,5%		60%		75%		80%

Organizational autonomy is limited since the university leadership and governing bodies are selected by the representatives of the line ministries. This says about top-down structure of organizational leadership and governance. The Board of Directors as well as a rector are selected by One Shareholder that acts on behalf of the Ministry of Finance, which determines eligibility criteria and powers of authority, terms of office, size of compensation and early termination of the offices. In this manner, unsurprisingly the Board of Directors is represented by the Ministry of Health, namely the Minister of Health of Kazakhstan as a chair. Therefore, it is early to claim that this governing body is truly independent collegial body. It is limited to think broadly rather only within its narrow frameworks. Therefore, the level of autonomy is 62,5 or 63%.

Operational and financial management of AMU as well as its decision-making capacity are centrally determined that justifies the current level of financial autonomy at the level of 60%. Restriction of financial autonomy at AMU is considered as a paradox. The rationality to establish a hybrid university (a joint-stock company or corporatized university) was to empower this type of educational institutions with a sense of greater autonomy in financial matters. This is why, external stakeholders as industry and business representatives are attracted into its governing body to strengthen the ability to generate revenues from different financial sources. However, the share of private sector constitutes only 35%, whereas the rest of shares belong to the government. Furthermore, many financial issues are regulated with obsolete regulatory and legal statutes that are not applicable to a corporate university and thus, they compromise its financial autonomy. Along with outlived regulations, the traditional line-item budgeting limits flexible and the need-based allocation of funding between line items. It says not only about financial inflexibility of AMU JSC but about most Kazakhstani institutions of higher education (excluding exceptional HEIs of Kazakhstan) operated by the

old funding allocation scheme. However, at the same time, AMU is flexible enough in borrowing money from national and foreign financial markets, owning buildings as well as setting market-based tuition fees.

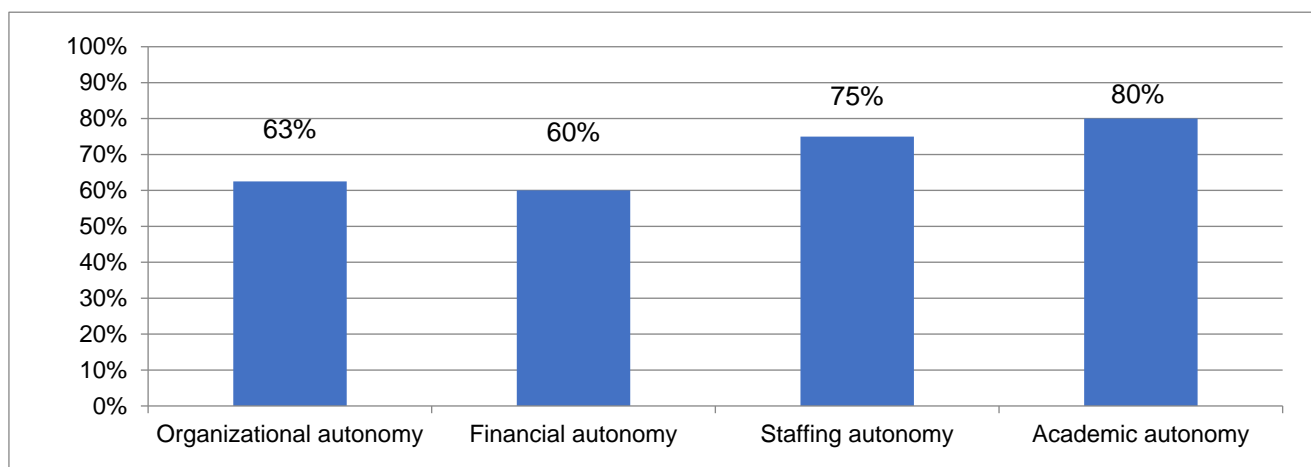
AMU is relatively autonomous concerning staffing and academic matters. However, it does not lack controversies that could be traced from recruitment of academic staff and administrative-managerial staff (AMS). For instance, AMU JSC cannot be exempted from the established regulations on academic staff selection followed by all HEIs regardless of their form of ownership and legal-organizational statuses. This is due to the status of academic personnel that categorizes them as workers on a basis of public budget. As a result, academic faculty is regulated by standardized regulations on selection and other related issues. However, the institution sets up its own regulations concerning administrative personnel recruitment since its corporatization. It has elaborated a pool of employees of AMU that is designed to replace senior administrative staff (heads of structural units) from a number of chief specialists of the same units who meet qualification requirements defined in the job descriptions and the Regulations on the specific structural unit. This internal hiring approach prevails since it allows the institution to appoint well trained staff and at the same time it incentivizes employees to be further promoted. Therefore, the level of staffing autonomy is 75%.

As for *academic autonomy*, it has been assessed at the level of 80%. This is the most autonomous area of decision-making of the institution. However, it also has indicators that are decided in twofold way due to the external control over admissions to undergraduate and postgraduate programmes, selection criteria as well as determining the student numbers to publicly funded programmes (the State Educational Grants). Nevertheless, there is observed a strong tendency in deregulation of academic affairs of not only AMU but also state universities with the adoption of the principles of the Bologna Process. Introduction of the electives had a significant impact on the State Compulsory Educational Standards that have been reviewed and adapted to the international standards in curriculum design. As a result, universities have more and more independence in designing the content of their degree programmes. However, selection of quality assurance seems controversial and ambiguous due to the undeveloped Law on State Procurement that does not consider the national register on accreditation agencies that are authorized to render accreditation services. Nevertheless, AMU



is free to decide on introduction of commercial degree programmes (e.g., MBA in Hospital Management). As a medical university, AMU does not need to terminate any of its offered programmes due to their high demand. It is also important to understand that even being a for-profit organization, AMU does not focus only on profit maximization. Rather, its values are based on ensuring quality of teaching and training of future medical professionals.

Figure 1. The degree of autonomy on four types of institutional autonomy at AMU



The current level of autonomy being 69% implies that relationship between state and higher education organizations has changed but without an ultimate shift towards autonomous governance. Apparently, the state has delegated its partial authorities to specialised buffer bodies as the Board of Directors at JSC and the Supervisory Boards at national and state universities. However, these buffer bodies still retain significant state influence over HEIs in Kazakhstan. The financial and management issues are dominated by excessive state control serving as a main policymaker. In addition, those areas of autonomy as staffing and academic autonomy are not high as well in terms of independence. Some of their indicators are implemented with involvement of the state. To date, state regulation and control prevail in higher education. However, significant shifts in the state-university relations are undisputable. Probably, it is better to refer to the conclusion made by Estermann, Nokkala and Steinell who noticed that European national education systems are quite diversified due to geographical, historical, traditional and cultural backgrounds that altogether impact on an overall degree of autonomy in a specific country. The level of institutional autonomy of AMU can be characterized as a transition period from state control to semi-autonomous model of university autonomy at least based on a case study of AMU.

## 9.5 Recommendations

The present case study has revealed that at present the interaction between the university and the state (the Ministry of Health) refers to the sovereign, rationality-bounded state steering model where the state dominates over the universities controlling the latter (Austin & Jones, 2015). Hence, higher education organizations serve as governmental instruments to achieve political, economic and social goals (Gornitzka, A.; Maassen, 2000). Nevertheless, AMU is able to shift from a semi-autonomous to independent governance with the results obtained on academic and staffing types of institutional autonomy. In other words, by the end of a national strategy to reform medical higher education as well as education modernization plan, it is feasible for AMU to attain the state steering model 'The corporate-pluralist state model', where the view of the state as a unitary actor with monopoly over power and control is challenged. Rather, it assumes that there are several competing and legitimate centres of authority and control with respect to higher education (Gornitzka & Maassen, 2000, p.271). Thus, this model embraces the multiple stakeholder concepts. This approach allows a more broad-based network of policy-making in which the interests of multiple stakeholders with a right to participate are represented (Austin & Jones, 2015). With this model, negotiation and consultation play a major role in the decision-making processes. The case study of AMU has proved involvement of external members in the Board of Directors of AMU (private sector, industry and business).

To mitigate the dominated influence of the state over financial and organizational affairs of the institution, it is recommended to revise legal statutes, laws and decrees in undergraduate and postgraduate education that regulate this particular type of HEI as a joint-stock company. Because the case of Nazarbayev University as a joint-stock company university exemplifies how a higher education institution can be successful in financial, organizational, academic and staffing matters in case of exemption from overregulation. To achieve greater autonomy, institutions need those regulations that do not compromise their academic freedom and institutional autonomy. HEIs are able to decide freely on operational and financial management as well as on strategic issues when favourable conditions are established.

Another recommendation relates to institutional leadership and governance. Besides institutional autonomy, it is important to nurture higher education leaders and managers who are able to act as chief executive officers and to manage the whole enterprise accordingly.

Traditionally, executive heads in Kazakhstan are selected based on their prominent academic and scientific experience in education system. However, autonomous business-like universities have to be managed not by academia solely rather by those who are aware of risk management, corporate management, financial management and the like. This is why, Nazarbayev University organizes short cycles of workshops for rectors of Kazakhstani HEIs to learn how to manage a university in a corporate environment. Moreover, the flagship university has launched educational management and leadership degree programmes that will boost the number of professionals in higher education management in the context of globalization and Kazakhstani realities.

## 9.6 References

- Altbach, P. G., Reisberg, L., & Rumbley, L. (2009). Trends in Global Higher Education: Tracking an Academic Revolution. In *UNESCO 2009 World Conference on Higher Education* (p. 278). UNESCO. Retrieved from [http://www.cep.edu.rs/public/Altbach,\\_Reisberg,\\_Rumbley\\_Tracking\\_an\\_Academic\\_Revolution,\\_UNESCO\\_2009.pdf](http://www.cep.edu.rs/public/Altbach,_Reisberg,_Rumbley_Tracking_an_Academic_Revolution,_UNESCO_2009.pdf)
- Anderson, D., & Johnson, R. (1998). *University autonomy in twenty countries*. Canberra: Department of Employment, Education, Training and Youth Affairs. Center for Continuing Educational the Australian National University. Retrieved from [http://www.magna-charta.org/resources/files/University\\_autonomy\\_in\\_20\\_countries.pdf](http://www.magna-charta.org/resources/files/University_autonomy_in_20_countries.pdf)
- Askling, B.; Bauer, M.; Marton, S. (1999). Swedish universities towards self-regulation: A new look at institutional autonomy. *Tertiary Education & Management*, 5(2), 175–195. <https://doi.org/10.1080/13583883.1999.9966989>
- Austin, I., & Jones, G. A. (2015). *Governance of higher education: Global perspectives, theories, and practices*. Routledge. <https://doi.org/10.4324/9781315816401>
- Bhattacharjee, A. (2012). Social science reserach: principles, methods, and practices. *Textbooks Collection., Book 3*. Retrieved from [http://scholarcommons.usf.edu/oa\\_textbooks/3](http://scholarcommons.usf.edu/oa_textbooks/3)

- Bladh, A. (2007). Institutional autonomy with increasing dependency on outside actors. *Higher Education Policy*, 20(3), 243–259. <https://doi.org/10.1057/palgrave.hep.8300161>
- Bray, N. (2010). The deanship and its faculty interpreters: Do Mertonian norms of science translate into norms for administration? *The Journal of Higher Education*, 81(3), 284–316.
- Christensen, T. (2011). University governance reforms: potential problems of more autonomy? *Higher Education*, 62(4), 503–517. <https://doi.org/10.1007/s10734-010-9401-z>
- Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. *Sage Publications, Fourth edi.*
- Dobbins, M., Knill, C., & Vögtle, E. M. (2011). An analytical framework for for the cross-country comparison of higher education governance. *Higher Education*, 62(5), 665–683. <https://doi.org/10.1007/s10734-011-9412-4>
- Estermann, T., & Nokkala, T. (2009). University Autonomy in Europe-I. Brussels. *Brussels:European University Association*. Retrieved from [http://www.rkrs.si/gradiva/dokumenti/EUA\\_Autonomy\\_Report\\_Final.pdf](http://www.rkrs.si/gradiva/dokumenti/EUA_Autonomy_Report_Final.pdf)
- Estermann, T., Nokkala, T., & Steinell, M. (2011). University Autonomy in Europe II. The Scorecard. *Brussels:European University Association*. Retrieved from [http://www.eua.be/Libraries/publications/University\\_Autonomy\\_in\\_Europe\\_II\\_-\\_The\\_Scorecard.pdf?sfvrsn=2](http://www.eua.be/Libraries/publications/University_Autonomy_in_Europe_II_-_The_Scorecard.pdf?sfvrsn=2)
- Gornitzka, A.; Maassen, P. . (2000). Analyzing organizational change in higher education. *Comparative Perspectives on Universities, Emerald Gr*, 83–99.
- Gornitzka, A., & Maassen, P. (2000). Hybrid steering approaches with respect to European higher education. *Higher Education Policy*, 13(3), 267–285.

Government of RK. Концепции приватизации объектов образования и науки в Республике Казахстан на 2000-2005. [Conception about Privatisation of Objects of Education and Science in RK for 2000-2005], Pub. L. No. 555 (2003). Republic of Kazakhstan: Respublika Kazakhstan.

Hénard, F., & Mitterle, A. (2010). Governance and Quality Guidelines in Higher Education. In a review of Governance Arrangements and Quality Assurance. In *A review of governance arrangements and quality assurance*. Paris: OECD. Retrieved from <https://www.oecd.org/edu/imhe/46064461.pdf>

National Erasmus+ Office. (2017a). *Overview of the Higher Education System: Kazakhstan*. EACEA. <https://doi.org/10.2797/985596>

National Erasmus+ Office. (2017b). *Overview of the Higher Education System: Kazakhstan*. <https://doi.org/10.2797/985596>

Neave, G., & Van Vught, F. A. (1994). *Government and Higher Education Relationships across Three Continents: The Winds of Change. Issues in Higher Education Series* (Vol. 2). Pergamon Press, Elsevier Science Ltd., The Boulevard, Langford Ln., Kidlington, Oxford OX5 1GB, England, United Kingdom (52 British pounds, 83\$).

Nokkala, T., & Bladh, A. (2014). Institutional autonomy and academic freedom in the Nordic context - similarities and differences. *Higher Education Policy*, 27(1), 1–21. <https://doi.org/10.1057/hep.2013.8>

OECD. (2008). *Tertiary education for the knowledge society*. Paris: OECD. Retrieved from <http://www.oecd.org/education/skills-beyond-school/41266690.pdf>

OECD-World Bank. (2007). *Higher Education in Kazakhstan (Reviews of National Policies for Education)*. Retrieved from <http://documents.worldbank.org/curated/en/353061468039539047/Higher-education-in-Kazakhstan>

Turcan, R. V., & Bugaian, L. (2014). *University Institutional Autonomy in Moldova*. Chisinau: Cuvantul ABC (F.E.-P. "Tipografia Centrala").

Van Vught, F. A. (1989). Governmental Strategies and Innovation in Higher Education. *Higher Education Policies Series*, 7(Taylor & Francis Group, 1900 Frost Rd., Suite 101, Bristol, PA 19007).

Van Vught, F. A. (1993). *Patterns of governance in higher education concepts and trends*. Retrieved from <http://unesdoc.unesco.org/images/0009/000962/096236eb.pdf>

Varghese, N. V. ., & Martin, M. (2014). *Governance reforms in higher education: A study of institutional autonomy in Asian countries*. (N. V. . Varghese & M. Martin, Eds.). UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0022/002272/227242e.pdf>

Yin, R. K. (2011). *Qualitative Research from Start to Finish* (Second). New York: NY: Guilford Press.

Zgaga, P. (2006). Reconsidering higher education governance. In J. Kohler & J. Huber (Eds.), *Higher education governance between democratic culture, academic aspirations and market forces* (pp. 35–50). Council of Europe Publishing.

## 10 The Use of Information for Decision-Making: Designing Academic Programs

Carlos A.Salgado

### 10.1 Background

Universities have to be efficient, participation in higher education [HE] has increased significantly in recent years (Trow, 2007). Universities have to be effective; the knowledge economies depend on them (Vught, 2009). Successful strategies from other fields are being applied in HE, as means to achieve the simultaneous objectives of efficiency and effectiveness.

One of these strategies is rational decision-making<sup>4</sup>. A process by which information is thoroughly collected and refined in order to maximize its value. The purpose of this process is to reach the ‘optimal’ solution to a problem: one that provides the greatest benefit at the lowest cost. This process is dependent on certain conditions: that objectives are explicitly defined and agreed upon, complete and reliable information is available, and alternatives are evaluated to identify the candidate with most probability of success (Citroen, 2011). This process requires large amounts of information.

The amount of information available to universities increased considerably in the last century (Borden & Bottrill, 1994). The growth of institutional research in the United States shows that rational decision-making can be effective in HE. It ‘provides universities with increased planning and decision-making capabilities’ (Klemenčič, Šćukanec, & Komljenović, 2015). It seems universities everywhere should be investing in improving their use of data. Nonetheless, this is not always the case.

---

<sup>4</sup> In the scope of this document rational decision-making refers to a specific process. Non-rational decision making refers to an alternative process, not to be confused with irrational or sense-less.

While there are advantages of using a rational decision-making process, there are also limitations. The application of rational decision-making in HE has been questioned. The process requires an agreed upon, explicit objective, and universities are engaged in fulfilling multiple goals simultaneously; they are often implicit, and can sometimes be conflicting (Birnbaum, 1989; Pinheiro, Langa, & Pausits, 2015). It depends on complete information, an improbable objective if considered the implications of *bounded rationality* (Simon, 1997). Finally, it hinges upon the ability to predict the effects of alternative courses of action, something very challenging when considering the *loosely coupled* organization of university sub-systems (Weick, 1995).

There is an alternative to rationality when making decisions in HE. Rather than trying to reach the ‘optimal’ solution through a *value maximizing* process, scholars argue HE would benefit more from reaching ‘consensus’ through a process of *value satisficing* (Choo, 1996). A non-rational strategy for decision-making prioritizes argumentation and negotiation over measurements and predictions.

The application of rational decision-making based on data is both defended and criticized in higher education. By only analysing literature it is not entirely clear if universities would benefit from implementing a rational decision-making approach. When statements like “There is almost nothing more frustrating to an institutional researcher than seeing university leaders ignore data. (Bers and Seybert, 1999; as quoted by McClintock and Snider, 2008, pp. 15)”

are seen beside

“It is not hard to imagine a society in which requests for information and insistence on reports and analyses would be signs of indecisiveness or lack of faith. (Feldman and March, 1981, pp. 182)”

it seems that two opposite positions are being argued for simultaneously. On one side scholars are promoting the use of data to inform a rational decision-making process. On the other scholars reinforce the limitations of data use in the complex, non-rational environment of HE. The divide is further emphasized considering these views are supported by epistemologies that have different understandings of the nature of reality.

More knowledge is needed to understand the mechanisms by which these two decision



making models complement each other. This research aims to clarify the theoretical gap by observing how decision-making takes place in a real-life context.

A conceptual framework is constructed emphasizing the ideals of the approaches mentioned above. Based on rationality, a structured decision-making model [SDM] will prioritize the use of quantitative information, or data, and use it to measure, compare and predict possible alternatives in search for an ‘optimal’ solution. In contrast, a discursive decision-making model [DDM] will prioritize the use of qualitative information and use it to support argumentation in search of a deeper understanding of possible alternatives in order to reach ‘consensus’ for a solution.

This paper does not claim that a rational decision-making approach uses only quantitative information or that a non-rational approach uses only qualitative information. In fact, Terenzini’s (1993;2013) definition of institutional research is based on three tiers of intelligence, making a strong emphasis on contextualizing data based on the issues and culture within an institution. At the same time, Ewell (2012) argues that even when opposing positions are presented, each one of them should be fact based and justified.

However, this distinction is made with the purpose of analysis, (the process of separating something into its constituent elements (Oxford)). After engaging the field, a process of synthesis (the combination of components or elements to form a connected whole (Oxford)) will take place in order to reach a more holistic understanding of how information is used in the decision-making process, hopefully increasing our understanding of how rational decision making and non-rational decision-making processes can complement each other in a real-life decision-making scenario. The specific context of academic program design in a university of applied sciences in Germany was chosen as the settings for the research.

RQ: How is information being used for decision-making in the design and development of academic programs in a German university of applied sciences?

SQ1: What is the organizational context where decisions are being taken?

SQ2: What are the types of decisions being made?

SQ3: What type of information is being used?

SQ4: What is the purpose of each type of information?

## 10.2 Methodology

This study will follow a qualitative inquiry ‘aimed at describing and clarifying human experience as it appears in people’s lives’ (Polkinghorne, 2005). Following the worldview of constructivism, which assumes ‘meaning is not discovered, but constructed’ (Crotty, 1998, pp. 9); and relying on the participants’ views of the situation being studied, the researchers’ role is to make sense, or interpret the meanings others have about the world (Creswell, 2013, pp. 8). Thereby increasing our understanding through a process of data collection, interpretation and analysis, ‘that will build from the particular to the general’ (Creswell, 2013, pp. 4). This study aims to describe how participants use information to make decisions, in other words, what is the meaning of information from their point of view.

Creswell proposed five traditions of qualitative inquiry; biography, phenomenology, grounded theory, ethnography and case study. Each tries to answer different types of research questions and use specific analytic tools. Case studies are used when ‘investigating a complex phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident’ (Yin, 2013, pp. 14). Our purpose is to reach a deeper understanding of a phenomenon in its environment; therefore a case study is the appropriate methodology. The specific phenomenon subject to be understood is how information is used for decision making in the design of academic programs. Information use behaviours will vary depending contextual elements like organizational culture or personal backgrounds.

### *10.2.1 Interview Design*

The data collection process requires an application of the conceptual framework to an observation of the behaviours in the context of the cases, and therefore, a preliminary data collection process had to take place in order to learn about this context. At this stage three unstructured interviews were conducted with two administrative staff members and one professor, with the purpose of understanding the unique characteristics of academic program development in the faculty. The results of these interviews provide contextual knowledge (chapter 9) and allows the application of the conceptual framework to develop interview designs as explained below.

After the contextual interviews, a pilot interview was conducted with one program coordinator to test if the interview design was providing the relevant data, and corrections

were made when appropriate. Specifically, irrelevant questions were removed, and a set of obligatory questions was established. The final interview design began by asking the interviewee to introduce his academic program, and then to volunteer an important decision that was taken that altered the program significantly. From that point on, the researcher tried to explore the decision in depth, by exploring the motivations and the different uses for information in each case. As a result of the pilot, key questions were found to be important and were asked in every subsequent interview. The interview process finalized by re-interviewing the first respondent and as such covering for the missing questions of the pilot. The obligatory questions were:

1. How did the idea for this decision come about
2. Who made the decision
3. What was the intention of this decision
4. What information was used to make the decision
5. Where did this information come from
6. Were alternative solutions for the decision contemplated
7. Was there opposition at the moment of implementing the solution
8. How was the success of the decision evaluated

As is the case with un-structured interviews, these questions were not asked in order, and did not follow one another. Often times one the main questions mentioned above lead to minor questions, related only to the case, that were followed in order to reach a comprehensive view of the whole situation.

### *10.2.2 Organization*

The interviews were conducted in a university of applied sciences in Germany. It is one of the largest and of highest performance universities of applied sciences in its region. It has four faculties and more than one-hundred-degree programs, known for their innovativeness and progressiveness. It has a noteworthy research orientation and sees research as an essential contribution to solving socially relevant issues.

### *10.2.3 Program A*

Degree: B.A.

Program Duration: 6 semesters

Characteristics: Business program with public orientation Decision: To introduce a module on service learning

Description: The management program in UNG trains graduates to manage companies and services, as well as charitable and non-profit organizations. The study program is interdisciplinary, practiced oriented, and has a service orientation.

#### *10.2.4 Program B*

Degree: M.B.A

Program Duration: Variable

Characteristics: Lifelong learning, part-time M.B.A program Decision: To make the program follow a modular Structure

Description: The program qualifies graduates for management positions at universities and scientific institutions. It is oriented towards candidates between the ages of 30 and 40 who are currently employed. The program has a strategic orientation, focusing on the management of universities and universities of applied sciences.

#### *10.2.5 Program C*

Degree: M.A.

Program Duration: 6 semesters

Decision: To replace an internship semester with teaching modules

Description: The program qualifies graduates for a career in international management.

Internationalization is embedded in the curriculum and lecturers have experience abroad. The program has a strong practical orientation and can be studied in English.

### 10.3 Findings

**F1: Both quantitative and qualitative information were used in the initial phases of decision making to identify problems, in subsequent phases qualitative information was prioritized.**

The purpose of this research is to understand *how* information is used for decision-making.

The decision-making process was defined based on five steps, with the intention of exploring

how information was used in each step. Our strategy was to define two ideal models of information use: SDM, based on quantitative information and analysis; and DDM, based on qualitative information and analysis. It is possible to initially conclude that DDM explains the decision-making process better, but there was also a role played by SDM, specifically in the *identify problems phase*. One aim of the research is to clarify how these two processes can complement each other, and this finding can provide a basis to do so.

#### Quantitative Information (Data)

In the studied cases, quantitative information was only prioritized in the first phases, to *identify an objective*. It means that data was used mostly to diagnose or to detect, based on the conceptual framework used. Through data, decision makers could measure the size of a problem, and have a clear picture of what was occurring in reality. Data was not used to set explicit targets, to compare alternatives or to motivate others.

#### Qualitative Information

The reasons for the phenomena 'detected' by the data in the *identifying an objective* phase had to be complemented by qualitative information. Through language and communication, decision-makers obtained a deeper understanding of the situation. In subsequent stages, qualitative information was used to search for and evaluate solutions, as well as to implement, justify the decisions and evaluate success.

#### Implications: the role of information in decision-making

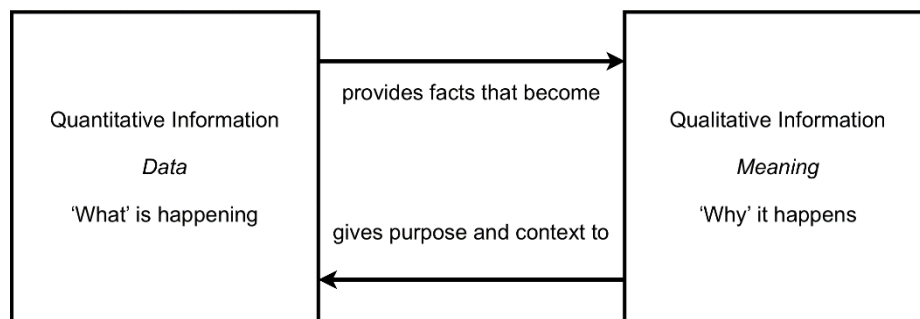
For Ewell (2012), what distinguishes data from information is the presence in the latter of a use, a user, and a context. The findings from this research support this distinction. In other words, data has no intrinsic meaning, but it is a raw material from which meaning can be obtained.

Quantitative information, or data, is important because it can communicate the current state of a phenomenon in reality. If indicators are chosen correctly, they can serve as instruments of perception. Number of applicants, time to degree, origin of students and age of students are examples of indicators that convey information about a program. However, how important each of these indicators is, or what meaning they have, will depend on the underlying goals and values of decision-makers who use them. These underlying values are understood and communicated qualitatively.

It can be seen as a cyclic process, where data presents facts to be interpreted and at the same time values, beliefs and objectives determine what data is important (figure 1). Within this frame, it is possible to give each type of information a different purpose.

Quantitative information, or data, is used to communicate facts about the world. Qualitative information is used to determine what these facts mean. Quantitative information responds to the question of ‘what’ is happening. Qualitative information can respond to ‘why’ it happens. One of the objectives of this research is to clarify how rational and non-rational decision-making processes can complement each other. By acknowledging and emphasizing this distinction, it is possible to obtain the benefit from both models.

Figure 1: Information Cycle



A possible implication of this is that decision-makers should focus on two things. One, in collecting and observing data that allows an *observation* of the current state of academic programs. These facts can reveal information about the program that would be impossible to perceive qualitatively. Second, identify what underlying beliefs, strategies or goals are driving the interpretation of the data. As proposed by scholars of organizational culture, when similar beliefs are shared among organizational actors, the interpretations they make from the data will be similar, and therefore the decision-making process will be more efficient, as less time will be spent in arguing about contradictory beliefs. And, as can be seen in the study of the cases, when contradictory beliefs are present, the solution is reached through power or consensus, not by numbers or statistics.

**F2: An assumption made by the conceptual framework was not fulfilled in reality.**

**This leads to the proposition of a new decision-making model that best fits the observed behaviour.**

The conceptual framework used to observe reality assumes that alternatives are first found, and then compared to each other in a formal process; findings contradict this. Decision makers do not engage in a formal, discrete process of comparison of alternatives because they are *constantly* engaged in searching and evaluating possible solutions for their strategic objectives.

Academic professionals are involved in more than one project. There are objectives to be met in each project, and these challenges exist simultaneously in the decision-makers minds. In communication with colleagues and interactions with the environment, decision-makers are constantly working for and trying to find solutions for the challenges faced by their various projects. This is a process of constant search and evaluation of different types of information. Once a decision has been found to fit a solution, the search stops, and discussions are had to evaluate the applicability of the solution. Here the adaptation and implementation process begins.

This model can be illustrated with a biological analogy. There are different types of cells in our body, each with specific needs depending on their function. When they require a 'solution' to their needs, they create a receptor for it in their cell membranes. This receptor will respond when a molecule from the environment 'fits' its shape. Our bloodstream is rich with many types of molecules. By interacting with the bloodstream cells are exposed to possible 'solutions' to their needs, and when one fits the receptor, it is taken in and absorbed. Cells do not collect molecules and evaluate which one has the most probability of satisfying its needs.

Decision-makers behave in a similar way. When an objective has been identified, a 'receptor' is created where a solution will fit. By interacting with the environment through conversations, observations and experiences, decision-makers are exposed to many possible solutions to their problems. The evaluation of these solutions is happening constantly and implicitly, where solutions that don't fit are rejected, until one that does is found. At this point either the solution is modified to fit the institution, the institution is modified to accommodate the solution, or both. The receptor is now removed and replaced by the next objective in a

never-ending process of improvement.

One implication of this model is that in order to improve decision making, the exposure to ideas should be increased. In terms of the analogy, it would mean to increase the amount of molecules available to the cells to test in their receptors. In HE terms, this means increasing the exposure to ideas (possible solutions) through contact with colleagues, partners and trends of the environment. Decision-makers would benefit from a constant flow of ideas and best practices.

**F3: The cases presented real-life examples of implicit goals, incomplete information and unpredictability of outcomes, the characteristics of HE mentioned by scholars in the literature.**

Finally, the research problem this paper addresses comes from a gap in the literature, specifically, the discussion between scholars defending both rational and non-rational decision-making. One clashing point in this discussion is the presence (or absence) of conditions that favor rational decision making. The cases showed real-life examples of the conditions predicted by scholars that criticize rational decision-making, emphasizing the complex HE environment.

This research studies only one decision for each program, however, the decision-making process is ongoing. Decisions are constantly taken to improve programs, and its effects influence decision making elsewhere in the university. The effects these decisions will ultimately have are unknown. It is impossible to predict the outcomes these decisions will have in the faculty in the future. At the same time, new problems arise that require new decisions. New solutions are being searched for, that could potentially include different types of degrees, that in turn could alter record keeping and open the door for other programs to adopt these changes. These events are interesting as findings because they show real-life examples of ideas found in the literature of HE.

## 10.4 Recommendations

### *10.4.1 Based on finding F1*

It has been argued that quantitative information, or data, is being used for the purpose of



‘perception’, as means of observing what is happening; while qualitative information is used for the purposes of interpreting and giving meaning to this information, in order to determine why it is happening. This distinction allows decision-makers to use each information type for a different purpose, and therefore, to maximize the value of each type of information. The recommendations provided are aimed at accomplishing this.

#### *10.4.1.1 For professors and program coordinators*

Decision-makers should have two distinct objectives when engaging information. One is to determine *what* is going on (based on data), and the other to determine *why* (based on values and meaning). By distinguishing between these two purposes, they can be emphasized and enhanced, increasing the probability of improving decision-making processes. Data can be used to tell a story, however, a story not based on data is at risk of not responding to facts of the environment. At the same time, it would be beneficial to be aware of what are the underlying beliefs and values that are driving behaviour and use data to determine if *what* is happening in the environment confirms or denies these beliefs. By understanding that data is an instrument of perception, it gives the freedom to be critical with it, in other words to accept, reject, or re-interpret what it says.

#### *10.4.1.2 For Deans*

As stated before, interpretations of data are made based on underlying beliefs, and these beliefs have an influence on decision-making. By encouraging faculty members to interpret data, there is an opportunity to observe what are the underlying beliefs guiding these interpretations. Having a deeper understanding of what are the beliefs driving the behaviours of academic staff is beneficial in trying to reach consensus and understanding. Also, by recognizing and openly communicating these beliefs, it could lead to an opportunity where they are discussed, evaluated and agreed upon, leading to a stronger organizational culture. Encouraging different interpretations of quantitative information can be a first step in this direction.

#### *10.4.2 Based on finding F2*

The solutions for the objectives of the cases were found by interactions with colleagues, competitors or the environment. This leads to the conclusion that increasing these interactions

would lead to a greater exposure to more alternative solutions, thereby increasing the probability of finding a better solution, faster. This increases both the efficiency and effectiveness of decision making. The recommendations based on this finding revolve around ways to increase these interactions.

#### *10.4.2.1 For professors and program coordinators*

Share current challenges, objectives and/or how previous ones have been solved. An idea for a solution can come from anywhere, it can be a student, a colleague, or a friend. By sharing it gives the other person an opportunity to engage his knowledge and experience, and to give an idea that can lead to a solution.

Increase exposure to current events, best practices and latest trends; not only in the field of HE. By observing how organizations, in general, are dealing with challenges, creative solutions can be found to meet objectives. This can be done by establishing international partnerships (program A), maintaining professional networks (program B), and being aware of political trends (program C), but also from interactions with professionals from other disciplines or fields, and by being updated to latest research trends.

In summary, it is a good idea to be observant and receptive. The solutions for problems can be inspired by anything, even at unexpected times.

#### *10.4.2.2 For Deans*

Create spaces where professors can talk to each other: it could be a professors' conference where people tell stories of 'best-practices' or of 'lessons-learned'. This could be an opportunity to discuss and share ideas openly, and 'adding more molecules to the bloodstream'. Alternatively, communication can be through print, a magazine or an institutional tabloid. Encouraging professors to share possible solutions for the problems of their colleagues.

Be aware of the current objectives of professors in the faculty. As a dean there is an opportunity to communicate with various programs, this means it could be possible to serve as bridge. With information of what programs are dealing with besides how it can be solved, a flow of ideas could be established to enrich decision-making.

## 10.5 References

Atkins, M., & Ebdon, L. (2014). National strategy for access and student success in higher education (Policy Brief BIS/14/516). Retrieved from <https://www.gov.uk/government/publications/national-strategy-for-access-and-student-success>

Berge, P. L., & Luckmann, T. (1967). The social construction of reality. New York, NY: Penguin. Birnbaum, R. (1989). How colleges work: The cybernetics of academic organization and leadership. San Francisco, CA: Jossey-Bass

Birnbaum, R. (2000). Management fads in higher education: Where they come from, what they do, why they fail. San Francisco, CA: Jossey-Bass

Borden, V.M., & Bottrill, K. V. (1994). Performance indicators: History, definitions, and methods. *New directions for institutional research*, 1994(82), 5-21.

Bucher, R., & Stelling, J. (1969). Characteristics of professional organizations. *Journal of Health and Social Behavior*, 3-15.

Cabantous, L., & Gond, J. P. (2011). Rational decision making as performative praxis: explaining rationality's éternel retour. *Organization science*. 22(3), 573-586.

Choo, C. W. (1996). The knowing organization: How organizations use information to construct meaning, create knowledge and make decisions. *International journal of information management*, 16(5), 329-340.

Citroen, C. L. (2011). The role of information in strategic decision-making. *International Journal of Information Management*, 31(6), 493-501.

Commission Communication COM/2011/0808 of 30 November 2011 on Horizon 2020 - The Framework Programme for Research and Innovation. (2011)

Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods

approaches. Sage publications.

Crotty, M. (1998). The foundations of social research: Meaning and perspective in the research process. London/Thousand Oaks/New Dehli: Sage Publications

Dee, J. R., & Heineman, W. A. (2016). Understanding the Organizational Context of Academic Program Development. *New Directions for Institutional Research*, 2015(168), 9-35.

Ellen B. Mandinach (2012) A Perfect Time for Data Use: Using Data- Driven Decision Making to Inform Practice. *Educational Psychologist*, 47:2, 71-85. doi: 10.1080/00461520.2012.667064

Ewell, P., & Chaffee, E. E. (1981). *Promoting the effective use of information in decisionmaking* (No. 4). National Center for Higher Education Management Systems.

Ewell, P. T. (2012). Using information in higher education decision-making: Modes, obstacles, and remedies.

Feldman, M. S., & March, J. G. (1981). Information in organizations as signal and symbol. *Administrative science quarterly*, 171-186.

I. Chris Elford, (1996) Utilization of student outcomes assessment information in institutional decision making. *International Journal of Educational Management*, Vol. 10 Issue: 3, pp.36-45. doi: 10.1108/09513549610115091

Johnson, B., & Christensen, L. (2008). Educational research: Quantitative, qualitative, and mixed approaches. Sage Publications

Johnson, R. B. (1997). Examining the validity structure of qualitative research. *Education*, 118(2), 282. Klemenčič, M., Šćukanec, N., & Komljenović, J. (2015). Decisions Support Issues in Central and Eastern Europe. Institutional Research and Planning in Higher Education: Global Themes and Context.

- Laredo, P. (2007). Revisiting the third mission of universities: Toward a renewed categorization of university activities? *Higher education policy*, 20(4), 441-456.
- Mandinach, E. B. (2012). A perfect time for data use: Using data-driven decision making to inform practice. *Educational Psychologist*, 47(2), 71-85.
- Mathies, C., & Välimaa, J. (2013). Is There a Need for a European Institutional Research? *Tertiary Education and Management*, 19(1), 85-96.
- McClintock, P. J., & Snider, K. J. (2008). Driving decision making with data. *New Directions for Institutional Research*, 2008(137), 15-40.
- Pinheiro, R., Langa, P. V., & Pausits, A. (2015). One and two equals three? The third mission of higher education institutions. *European journal of higher education*, 5(3), 233-249.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of counseling psychology*, 52(2), 137.
- Redlinger, Lawrence J., and Nicolas A. Valcik. (2008) Using return on investment models of programs and faculty for strategic planning. *New Directions for Institutional Research*, 140 (2008): 93-108.
- Rourke, F. E., & Brooks, G. E. (1964). The "managerial revolution" in higher education. *Administrative Science Quarterly*, 154-181.
- Saupe, J. L. (1990). *The functions of institutional research*. Tallahassee, FL: The association for institutional research.
- Simon, H. (1997). Administrative behavior: as study of decision-making processes in administrative organizations. New York, NY: Simon and schuster
- Smith, J. K. (1983). Quantitative versus qualitative research: An attempt to clarify the issue. *Educational researcher*, 12(3), 6-13.

Taylor, F. W. (1914). Scientific management. *The sociological review*, 7(3), 266-269.

Teichler, U. (2009). Higher education and the world of work: Conceptual frameworks, comparative perspectives, empirical findings (Vol. 16). Rotterdam/Taipei: Sense Publishers.

Terenzini, P. T. (1999). On the nature of institutional research and the knowledge and skills it requires. *New directions for institutional research*, 1999(104), 21-29.

Terenzini, P. T. (2013). "On the nature of institutional research" revisited: Plus ça change...?. *Research in Higher Education*, 54(2), 137-148.

Trow, M. (1973). *Problems in the Transition from Elite to Mass Higher Education*. Berkley, CA: Carnegie Commission on higher education.

Trow, M. (2007). Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII. *International handbook of higher education* (pp. 243-280).

Weick, K. E. (1995) *Sensemaking In Organizations*. Thousand Oaks, CA: Sage Publications

Vught, F. (2009). Creating the European Knowledge Society: An analysis of EU higher education and research policies. *Paper for the Higher Education Review Group of the University Grants Committee of Hong Kong*.

Yin, R. K. (2013). *Case study research: Design and methods*. Sage publications.

## 11 Academic returnees' knowledge transfer in Vietnamese public universities

Van Truong Thuy

### 11.1 Abstract

In the trend of international education, many graduates have earned a degree from international education programs and returned to work in their home countries. This study explores the institutional factors affecting the process of transferring knowledge from international education to local workplace, taking the case of Vietnamese academic returnees in public universities. The study employs the qualitative approach and institutional theory to understand this phenomenon. Data from interviews of 16 academic returnees show that only a limited amount of their explicit and tacit knowledge earned abroad could be transferred to their colleagues at home institutions in teaching and research activities, mainly via informal, ad-hoc situations. At the core of the research, it is found that a combination of policies and regulations, especially human resource policies, constrains academic returnees' knowledge transfer. Other factors emerged from the receiving end include the strong values of hierarchy, clearly defined role between academics and upper managers, the mixture of values of individuality and collectivity. The cognitive structure of the group also greatly affects the knowledge transfer process, including the lack of shared mindsets, traditional ways of thinking and doing, perception about criticism and perception about returnees. These factors interact with each other and altogether indirectly affect the knowledge transfer process through directly impacting the receiving group's ability to learn and use new knowledge and the ability to cooperate, and the motivation of the academic returnees to transfer knowledge.

### 11.2 Background

This thesis studies the knowledge transfer of Vietnamese academics returning to public universities. The issue of utilizing returnees' knowledge and skills in the service of national development is not a new phenomenon, especially in developing countries, but it is not yet solved. Since the 70s-80s of the last century, Baldwin (1963, cited in Bovenkerk, 1981), Levine (1965, cited in Bovenkerk, 1981), Bovenkerk (1981) and Balkom (1991) studied

returnees in Ethiopia, Iran, Suriname and India and found out that there were many different constraints to their application of knowledge upon return. Nowadays, the above-mentioned problem is even emerges due to the significant trend of student mobility in the search for educational and possibly professional opportunities outside their home countries (Waters, 2009; Brooks, Waters, & Pimlott-Wilson, 2012; CIMO, 2014).

### 11.3 Research problem

Vietnam is one of the largest senders of international students in the world (Kritz, 2015). Among graduate returnees, it seems to be very challenging for them to fully apply their knowledge and skills into meaningful contribution to their working organizations' development (L. Nguyen, 2015; Thao Huong, 2014). Ho et al. (2015)'s survey shows that re-expatriation decision among Vietnamese returnees are strongly influenced by the poor living and working conditions in Vietnam rather than by pull factors from host countries. They find that re-entry experience is also a factor affecting their intention to re-expatriate. If returnees are more engaged and integrated in the home country professionally and socially, they are less likely to leave their countries (Tharenou & Caulfield, 2010, cited in Ho et al., 2015). 'When the opportunity arose for those young people to find jobs back in Vietnam, they would return' (Ziguras & McBurnie, 2015, p.106). However, if they are not able to develop their career at home, chances are they would migrate permanently, resulting in brain drain. So far, the Vietnamese government has had no policy on improving the employment conditions and incentives to attract this group of knowledge diaspora to return and contribute to the national development. Therefore, failure to tackle the problem of poor knowledge transfer from international education to local labour market would lead Vietnam to (1) even more serious skills shortage as it fails to extract skills and talents from this internationally trained workforce, and (2) more serious brain drain as it discourages knowledge diaspora to return and contribute to the home country, and pushes the returnees to re-expatriate. In other words, promoting a smooth transfer of knowledge and skills from international study to local employment is both a solution for *effective knowledge management* and a *pull factor* to motivate overseas students to return and retain in Vietnam to work and make use of their talents for the nation's development.



## 11.4 Research question

This thesis aims to answer the main question: What are institutional factors that affect the knowledge transfer of Vietnamese academic returnees in public universities?

Sub-questions are:

- What are knowledge and skills that academic returnees acquired during their overseas study?
- What are knowledge and skills that they could transfer into Vietnamese public universities? And in what ways?
- What are institutions that affect their knowledge transfer? And in what ways?

In this thesis, knowledge transfer is defined as a process that involves not just imparting of knowledge from academic returnees to their academic work units, but also the implementation and internalization of new knowledge into making changes in the way their colleagues think and do things.

## 11.5 Theoretical background

The phenomenon of knowledge transfer from academic returnees to their colleagues in public universities are seen through the lens of institutional theory. Institutional theory has been claimed to be a powerful framework to explain behaviour of individuals and organizations in institutional environment (Dacin, Goodstein, & Scott, 2002). Institutional theorists claim that there are taken-for-granted, enduring institutional rules, practices, norms, beliefs and values that shape institutional actors' behaviours in specific circumstances (Oliver, 1991; Olsen, 2005). DiMaggio (1988, cited in Battilana et al., 2009) introduced the notion of institutional entrepreneurs as 'change agents who initiate divergent changes, that is, changes that break the institutional status quo in a field of activity and thereby possibly contribute to transforming existing institutions or creating new ones' (Battilana et al., 2009, p.67). The change process is further explained by Dacin et al. (2002) that: 'actors are not passive. They make choices in the interpretation of the meaning and put forth. Actors perceive the meaning of institutions and infuse their actions with meaning based upon these perceptions' (p.47). However, institutions are often change resistant because they are embedded in actors' behaviours, cognitive structures and interests (Diogo, Carvalho, & Amaral, 2015). Therefore, institutional changes

do not happen immediately and are not easy to implement but go through a process of ‘theorization and legitimation by existing or new actors’ (Dacin et al., p. 48). Existing institutions are weakening, new institutions are justified, gain increasing legitimacy, and thus being institutionalized.

Application of institutional theory to explain the phenomenon of knowledge transfer of academic returnees to local universities is both possible and suitable for three reasons. Firstly, institutional theory can be used to analyse institutional process in both macro and micro level analysis. Therefore, it is suitable for this thesis as it concerns social and organizational institutions affecting individual knowledge transfer and whether individuals in a particular institutional environment could act as agent of institutional change, and how they react to institutional pressure to transfer knowledge. Secondly, by definition, knowledge transfer is an institutionalization process of new knowledge into a specific institutional environment. Knowledge is contextually embedded, meaning that it is embedded in institutions from its original context. The process of introducing new knowledge in a new context could be seen as bringing new institutions to that context. Academic returnees might go through the process of ‘theorization and legitimation’ (Dacin et al., p.48) of their foreign knowledge, and face five strategic responses to institutional pressure – acquiescence, compromise, avoidance, defiance, or manipulation (Oliver, 1991). Studies by Kostova and Roth (2002) and Robert (2012) proves the possibility of using this theory in knowledge transfer. Thirdly, there is no suitable theory in higher education studies that have been applied in knowledge transfer. Meanwhile, institutional theories have been used to explain some phenomenon in higher education studies. For example, Cai and Mehari (2015) investigated the use of institutional theory in higher education research and claimed that despite the high potential of utilizing institutional theory, only a few higher education researchers use institutional theories. When used, it is often combined with other theories to explain the characteristics of higher education institutions, mainly at the macro level. They called for more higher education research using institutional theory, especially at micro level. Therefore, this thesis contributes to the development of institutional theory by applying it in investigating the knowledge transfer process of academic returnees as agencies of change in higher education context.

Using institutional theory to investigate the phenomenon of returnees’ knowledge transfer in higher education context, this thesis also develops an analytical framework for understanding factors influencing the transfer process as in figure 1.

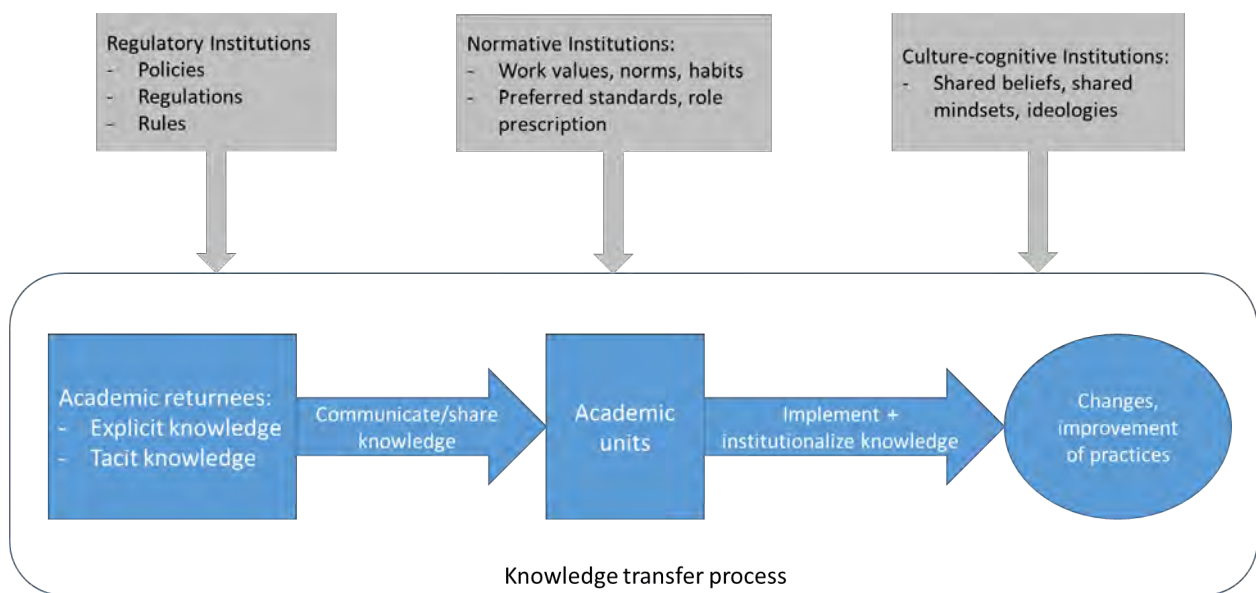


Figure 1: Analytical framework

## 11.6 Research Methodology

This is a qualitative study, in which data is collected through in-depth interviews of academic returnees in Vietnamese public universities. The researcher was aware of and also considered the use of quantitative method for this thesis as a valuable alternative option but chose qualitative method for three reasons. First and foremost, very few research have been done about knowledge transfer of international graduate returnees from education to work, and even none has been done for the case of academic returnees. Therefore, there is a need to first qualitatively identify meaningful influence factors in higher education context specifically that enables testing the level of influence of factors and correlation between them. Secondly, knowledge transfer is a complicated multi-stage process, making it difficult to measure numerically. Even researchers sometime misconceptualise knowledge transfer with some other terms such as knowledge transfer and knowledge application, it would be the case that respondents also fall into those misconceptions if the survey questionnaire fails to operationalize properly the concept ‘knowledge transfer’ which could lead to the failure of the whole research. Finally, it is the lack of information about academic returnees and limited time that makes it not feasible to conduct a large-scale survey. The development of an appropriate survey model for study-work knowledge transfer in higher education context itself deserves a separate study. This qualitative approach in fact could serve as an initial step to develop such a model.

In total, 19 in-depth online interviews were conducted with academic returnees who are Vietnamese citizen graduated from at least a Master's degree abroad, and returned to work for public universities in Vietnam for at least half a year. Data from only 16 valid interviews is analysed. In the interview outline, key point questions are divided into three main themes: (i) their evaluation on the level of utilization of their knowledge and skills in making changes and innovation in their job and workplace, (ii) How certain practices in the academic environment that potentially affect their transfer of knowledge upon return, and (iii) their recommendations to facilitate their knowledge transfer and encourage their contribution to changes and innovations. It is relevant because the chosen definition of knowledge transfer emphasizes that the success of knowledge transfer must result to changes.

After the interviews, the researcher transcribed the audio content into text and coded data using Atlas.ti software. The coding took place in two stages. First-time coding was done to have an overview of the general idea of data using the above analytical framework (see figure 1). Super-codes are: knowledge learnt abroad, mechanisms to transfer knowledge, knowledge that is not transferred, regulatory, normative, cognitive institutions, and strategies that returnees used to respond to institutional pressure. During the implementation of this step, it shows the need for the author to identify more specific codes under each super-codes to facilitate data analysis. Furthermore, an emerging theme is identified, i.e., absorptive capacity. The researcher then conducted re-coding with more details codes emerging from data.

## 11.7 Key findings

### *11.7.1 What are knowledge and skills that academic returnees acquired during their overseas study?*

Academic returnees brought home both explicit and tacit knowledge. Their explicit knowledge includes their expertise gained at their educational programs, textbooks, and other materials. Their tacit knowledge include independent learning and research skills, writing, critical thinking, culture, network, teaching methods, new ideology about education and science.

### *11.7.2 What are knowledge and skills that they could transfer into Vietnamese public universities? And in what ways?*

Academic returnees attempt to transfer both explicit and tacit knowledge through teaching and research activities. In successful cases of knowledge transfer via teaching, some academic returnees were able to share new teaching methods, integrate new textbooks in curriculum, or organize conferences on pedagogy for teachers. Through research, some academic returnees were able to share expertise knowledge, research skills, writing skills, and their international academic network. Most cases of knowledge transfer happens via informal mechanisms and on an individual, ad-hoc basis, such as personal talks and discussions with other colleagues, and contributing ideas to support colleagues solve problems. Formal mechanisms for transferring knowledge among academics include working together in joint projects, learning by observing and doing, contributing new ideas, and challenging status quo in faculty seminars. There is lack of more systematic, formal ways to transfer knowledge such as training or documentation. Noticeably, most cases are considered knowledge sharing only, but not knowledge transfer. In some cases, it is hard for transferors to know if their colleagues adopt the new knowledge. In other cases, it is clearly seen that the shared knowledge is not welcomed and not adopted by recipients.

### *11.7.3 What are institutions that affect their knowledge transfer? And in what ways?*

Institutions in all three pillars, regulatory, normative, and cognitive, affect knowledge transfer. The main trend is that institutions tend to impede rather than facilitate the knowledge transfer process. Regulatory institutions identified in this study include absence of supporting policies for knowledge transfer, complicated administrative procedures, policy focus on teaching, and ineffective use of existing policies. It is found that a combination of human resource policies in particular greatly constrain the knowledge transfer process. Some normative institutions are found, including the strong presence of hierarchy, defined role of returnees and managers, and other senior academics, value of individuality, and value of collectivity. Cultural-cognitive institutions affecting knowledge transfer include the lack of shared mindset for thinking and doing, perception about criticism, and perception about returnees. Interestingly, there are two important findings drawn out from data analysis. One is that these institutions do not affect the transfer process directly, but indirectly through impacting absorptive capacity and cooperativeness of receiving group and the motivation of transferors. The second important finding is that these institutions do not influence knowledge

transfer individually, but they interact and reinforce each other in the institutional environment, and altogether affect the process.

#### *11.7.4 Recommendations for future research*

Firstly, there are various ways to extend the study to other scopes: 1) academic returnees transferring knowledge in private universities, or branch campuses, 2) academic returnees transferring knowledge to community, 3) cross-border knowledge transfer in the viewpoints of other stakeholders, such as returnees' colleagues, managers, human resource managers, policy makers.

Secondly, future studies could further results of this study by using quantitative large-scale survey to investigate 1) the significance level that an institution has on the knowledge transfer process so as for different actors in the process to tackle the most significant factors, 2) the relationship and significance level of the interaction between institutions in three pillars.

Finally, a longitude study could also be conducted to explore the effect of returnees' knowledge transfer right after returning, 3-5 years after returning, and more than 5 years after returning. Another suggestion could be studying a policy supporting academic returnees and its effect on knowledge transfer. Vietnamese government is currently putting together a new policy on incentivizing knowledge diaspora to encourage their knowledge transfer for national development. It would be interesting to study the impact of this study by comparing the outcomes before and after issuing this policy.

## 11.8 References

Balkom, W. (1991). Professional and personal adaptation of returning Indian academics. McGill University.

Battilana, J., Leca, B., & Boxenbaum, E. (2009). How actors change institutions: Towards a theory of institutional entrepreneurship. *The Academy of Management Annals*, 3(1), 65–107. <https://doi.org/10.1080/19416520903053598>

Bovenkerk, F. (1981). Why returnees generally do not turn out to be “agents of change”: the

case of Suriname. *New West Indian Guide*, 3(4), 154–173.

Brooks, R., Waters, J., & Pimlott-Wilson, H. (2012). International education and the employability of UK students. *British Educational Research Journal*, 38(2), 281–298.  
<https://doi.org/10.1080/01411926.2010.544710>

Cai, Y., & Mehari, J. (2015). The use of institutional theory in higher education research. In J. Huisman & M. Tight (Eds.), *Theory and Method in Higher Education Research III* (1st ed.). Bingley: Emerald.

Dacin, T., Goodstein, J., & Scott, R. W. (2002). Institutional theory and institutional change: Introduction to the special research forum. *Academy of Management Journal*, 45(1), 43–56.

Diogo, S., Carvalho, T., & Amaral, A. (2015). Institutionalism and organizational change. In J. Huisman, H. F. de Boer, D. Dill, & M. Souto-Otero (Eds.), *The Palgrave international handbook of higher education policy and governance* (1st editio, pp. 114–131). Basingstoke: Palgrave Macmillan.

Ho, N. T. T., Seet, P.-S., & Jones, J. (2015). Understanding re-expatriation intentions among overseas returnees – an emerging economy perspective. *The International Journal of Human Resource Management*, 5192(June 2016), 1–29.  
<https://doi.org/10.1080/09585192.2015.1088884>

Kostova, T., & Roth, K. (2002). Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational context. *The Academy of Management Journal*, 45(1), 215–233.

Kritz, M. M. (2015). Why Do Countries Differ in Their Rates of Outbound Student Mobility? *Journal of Studies in International Education*, 20(2), 1–19.  
<https://doi.org/10.1177/1028315315587104>

Nguyen, L. (2015). Many oversea Vietnamese graduates find it difficult to find jobs after coming back home. Retrieved February 10, 2017, from <http://vnexpress.net/tin-tuc/giao-duc/du-hoc/nhieu-du-hoc-sinh-kho-tim-duoc-viec-khi-ve-nuoc-3334550.html>

Oliver, C. (1991). Strategic Responses To Processes Institutional. *Academy of Management Review*, 16(1), 145–179. <https://doi.org/10.5465/AMR.1991.4279002>

Olsen, J. P. (2005). The institutional dynamics of the (European) University.

Roberts, M. J. D. (2012). International returnees and the capturing of foreign Knowledge by emerging market firms. University of Western Ontario.

Thao Huong. (2014). Vietnamese international graduates and the door to career upon returning. Retrieved February 10, 2017, from <http://congly.com.vn/xa-hoi/giao-duc/du-hoc-sinh-va-canh-cua-viec-lam-ngay-tro-ve-69794.html>

Waters, J. L. (2009). In pursuit of scarcity: Transnational students, “employability”, and the MBA. *Environment and Planning A*, 41(8), 1865–1883. <https://doi.org/10.1068/a40319>

Ziguras, C., & McBurnie, G. (2015). *Governing cross-border higher education*. New York: Routledge.



## 12 The Dynamics of Academic Collaboration in Interdisciplinary Graduate Programmes: Case Study

Alexandra Zinovyeva

### 12.1 Background of the study: Interdisciplinary higher education

Interdisciplinary (ID) approach to research and teaching, based on the integration of multiple viewpoints in the creation of holistic picture of a phenomenon, presents an advantage to problem solving and innovation, training new generations of leaders, advancing research and development for allotting such complexity (Latucca et al., 2002; Weinberg, 2004; Boix Mansilla et al., 2015; Repko et al., 2016). Recently, interdisciplinary graduate programs have gained distinctive popularity in Europe, with a variation on the view on their effectiveness. The sceptical view on ID higher education is in part connected with ineffective implementation of interdisciplinary teaching approach in the programmes, when the “integration” element is replaced by “additive”, encyclopaedic character of disciplinary participation, thus significantly compromising the depth and not achieving a substantial level of quality breath (Frodeman, et al, 2017). Not to deliver “superficial education”, ID higher education programmes should be organized with a careful consideration and support of conditions to foster the development of student’s interdisciplinary thinking by purposefully creating the space for integration (Spielt et al., 2009). Integrated learning environment and the interdisciplinary faculty collaboration in teaching endeavours are the prerequisites.

#### *12.1.1 Contextual problem*

In their comprehensive literature review on ID thinking conditions, Spielt et al., (2009) concluded that “teacher” as a component of learning environment condition with its intellectual community focused on interdisciplinarity, team development and team teaching is fundamental in successful implementation of the learning outcomes of ID programmes and development of interdisciplinary thinking (Spielt et al., 2009, Ivanitskaya et al, 2002). As the relevant literature suggests and as Newell and Green (1983) summarized in their research, faculty collaboration is a requirement for a successful interdisciplinary programmes’ delivery of their primary objectives. Poor or lack of integrated interdisciplinary exposure in courses

and lectures delivery can create higher level of segregation of knowledge in its encyclopaedic character. It is seen important for graduate levels of education as well, where the disciplinary boundary of students have already been well established in their prior learning (Frodeman et al, 2017).

Systematization of the ID collaborative practices have a higher likelihood to fail rather than succeed (Kezar, 2005; Bryant et al., 2014). To create favourable conditions for ID academic collaboration, it is important to understand what organizational and professional factors can potentially promote or limit it. While the body of literature and empirical studies on conditions for ID collaboration in various practical research projects is available, the empirical research on specific ID collaboration in teaching in higher education settings appears to be scarce. Given the importance of the interdisciplinary approach for the organization of meaningful interdisciplinary education, the “artistic” and “craft” nature of teaching activities (Rowan, 1994), range of disciplinary approaches and attitudes to learning and teaching (Bradbeer, 1999) and the complexity of the environment it is organized in, the findings from other occupational research can be difficult to apply to teaching profession.

### *12.1.2 Central and sub-research questions*

In light of the previous discussion, this study aims to explore the enabling and constraining conditions for interdisciplinary teaching collaborative activities and its dynamics<sup>5</sup> by investigating into the faculty understanding of interdisciplinarity, perception of interdisciplinary education and interdisciplinary collaboration in teaching and, most importantly, examining and summarizing the barriers and enablers for ID collaboration in teaching in the context and within the group. To do so, the study formulates central research question and a set of sub-questions:

RQ: What are the barriers and enablers for interdisciplinary academic collaboration in teaching in the ID master’s degree programme as perceived by its representatives?

Sub-RQ:

---

<sup>5</sup> In this context: “a pattern or process of change, growth, or activity”. [Def. 2]. The dynamics refers to the internal development of interdisciplinary collaboration.

1. How do the representatives of the ID master's degree programme understand "interdisciplinarity"? How does it influence their attitude to interdisciplinary higher education?
2. How important is interdisciplinary academic collaboration in teaching in the ID master's degree programme as seen by the representatives of the programme?
3. What are the barriers to current interdisciplinary academic collaboration in teaching in the ID master's programme as indicated by the representatives of the programme?
4. What are the enablers of current interdisciplinary academic collaboration in teaching in the ID master's programme as indicated by the representatives of the programme?
5. What are the recommendations for positive dynamics of interdisciplinary academic collaboration in interdisciplinary graduate programmes? What are the recommendations for further research?

## 12.2 Analytical framework

### *12.2.1 Interdisciplinary collaboration analytical framework:*

Interdisciplinary collaboration analytical framework by Sicotte et al., 2002, is based on the empirical observations and research at Quebec interdisciplinary health care center. As the theoretical foundation, the framework uses organizational theory and more specifically the research concerning self-managed work groups, in which team members have the authority "to collectively make decisions and to handle internal processes as they see fit" (Hackman & Oldham, 1980; Yeatts & Hyten, 1998; as cited by Sicotte et al., 2002). Self-managed work groups are autonomous units within a larger system that organize their day-to-day activities without supervision (Sicotte, 2002). In its design, the framework heavily relies on an input-process-output model and describes contextual variables, intragroup processes, output and moderation factors. For this research, the framework has been modified to context of the research with special characteristics inherent to higher education settings in mind and is presented in Figure 3. Through contextual overview of interdisciplinarity (definitions, interdisciplinary approach and interdisciplinary learning), disciplinarity (defining disciplines, classification of disciplines, disciplinary culture), collaboration (defining collaboration,

collaborative teaching) helped to understand the variables of the framework.

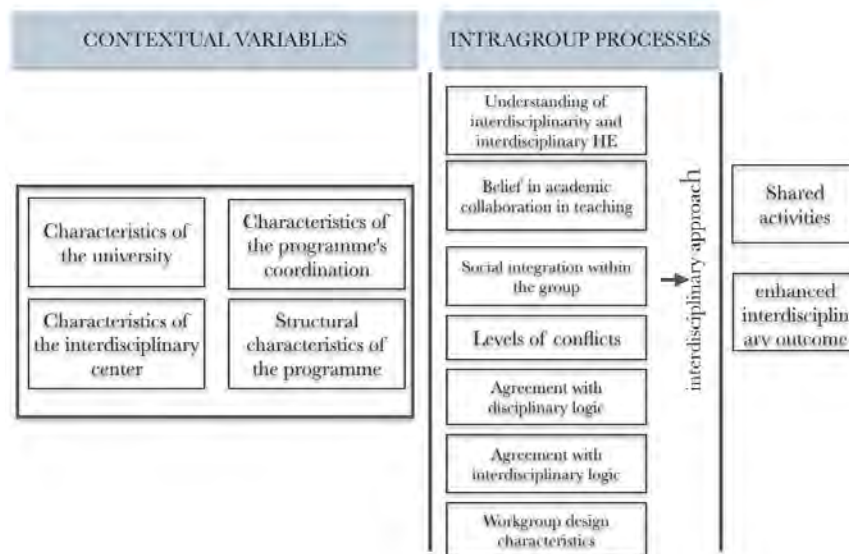


Fig. 3. Revised analytical framework for interdisciplinary collaboration in teaching (based on Sicotte et al., 2002)

The framework consists of a set of factors:

1. Contextual factors (serving as input) refer to the environment in which the groups are evolving. The model emphasises the importance of the internal organizational environment such as characteristics of the programme or programme coordination, financial resources and infrastructure etc. In the case of higher education, it is important to consider the characteristics of the university and the interdisciplinary center where the activities are taking place.
2. Intargroup processes, that define the process of service delivery, including beliefs in collaboration, level of conflicts, disciplinary culture, social integration and work group design. as suggested by Sicotte et al., 2002, intragroup processes play vital role in self-managed work groups. As identified by the literature, traditional professional values and social integration within different professional groups is considered as barriers to interdisciplinary collaboration (Bozzini, 1988; Brunet & Vinet, 1978; Couture, 1978; D'Amour, 1997; as cited by in Sicotte et al., 2002). The model incorporates this perspective in the design of the variables of this dimension and sees them as following: beliefs and benefits of interdisciplinary collaboration; social integration within a group, work group conflicts, attitudes towards traditional and interdisciplinary logic, and formalization - work group

design characteristics. Shared understanding of interdisciplinarity and interdisciplinary education is vital for the organization of effective teamwork.

3. The output factors are described in relation to work group performance ranging from the increased collaborative activities to improved services etc. In case of interdisciplinary collaboration in teaching they present shared activities and enhanced delivery.
4. A moderation factor, nature of the task, is commonly used in input-process-output oriented frameworks and is explained by the contingency theory perspective, where the nature of the work affects the internal processes.

### 12.3 Methodology

The research design and the methodology of the study utilize a qualitative approach with the objective to “investigate a contextualized contemporary phenomenon within specific boundaries” (Hatch 2002, p. 30). The study is exploratory.

#### *12.3.1 Research design*

The given investigation was led by a philosophy of a post positivist worldview, as it attempts to “produce knowledge based on objective observations, data, and rational considerations” (Creswell, 2009). The strategy of inquiry, which guides the procedure of the research, was a case study. This study follows an instrumental case study approach, where a single unit is chosen for an in-depth description as a representative of “a general event or phenomenon under investigation”.

#### *12.3.2 Research methodology*

*Desk research:* Desk research was employed to gain understanding of the phenomenon under investigation and was used to devise, conceptualize and operationalize the analytical framework for the data analysis and to unidentify the criteria for the chosen unit of research. To ensure that the chosen unit for analysis (an interdisciplinary programme) is representative, a set of criteria has been generated by the author. It is based on the observation of the commonalities in the worldwide pool of stable and accredited interdisciplinary programmes, in accordance with the taxonomy of interdisciplinary higher education by Frodeman et al. (2017). The unit of analysis is an interdisciplinary master degree programme at a

comprehensive research German university. For anonymity purposes, the programme is referred as IMDP, interdisciplinary center to which it is affiliated - Center AA, and the university - University A.

*Stakeholder interviews:* To address the objective of the research, semi-structures stakeholder interviews (based on the analytical framework) were conducted with a range of individual staff members involved into the unit's activities. A total of 8 interviews were conducted, out of which 6 interviews were audio recorded and transcribed, 2 interviews were paper note recorded and transcribed. 2 additional interviews served a complimentary purpose at the preliminary stage of desk research. The diversity of disciplinary perspectives was an important criterion in the choice of interviewees to avoid disciplinary bias and have a comparative view on the possible disciplinary differences on the phenomenon under investigation. Therefore, purposeful sampling strategy was utilized, to ensure that the population of the research is: (1) representative of different disciplinary affiliation; (2) representative of different organizational affiliation to the programme; (3) representative of different levels and duration of involvement in the programme. Most of the interviewees represent different disciplinary affiliation and different affiliation with the programme in terms of their time spent in this specific unit teaching or administering.

*Coding and content analysis of the interviews:* The analysis of the data utilized the framework method by Ritchie & Spencer (2002). The framework matrix was developed based on the analytical framework by Sicotte et al. (2002) used for the study and the literature review. Initially, potential topics of discussion were identified in each variable of the framework to formulate interview questions and guide the interviewer. Further, the review of the transcripts identified the prominent themes (trends) in the discussion among the initial themes, determined by the literature review and new emerging themes. Further, more commonly referred topics were analysed and the stakeholders' views were compared, which resulted in 37 themes across 12 major variables (contextual variables, intragroup processes and nature of the task). The themes were further translated into enabling and constraining factors and are presented in accordance with the variables of the analytical framework in Table 3.

*Validity and reliability:* The findings are internally validated by using triangulation strategy. Firstly, a variety of documentation in connection to the unit of analysis have been studied. Secondly, to ensure the variation in viewpoints, the interviewees presented a wide range of

disciplinary affiliation, organizational affiliation to the programme and different levels and duration of involvement in the programme. To ensure honesty in informants, the research does not disclose the name of the unit of analysis and the university.

To ensure reliability of the research, a well-designed protocol was followed in the stages of data collection and data analysis (Yin, 2003). To avoid the misfit of the interviewee, a desk research on the profiles of the interviewees and prior consultation with the administrative representatives of the unit of analysis were conducted. Moreover, the participants were presented with the approximate topics of the interview prior to the discussion itself to give them the opportunity to withdraw if in doubt about their expertise and experiences' relevance. The participants voluntarily signed the Form of Consent to protect their data and personal information. The data itself were organized and coded according to the themes from the interview responses.

*Limitations:* (1) an instrumental single case study approach might not be substantial for the generalization due to the potential particularity of the case and its environment. For better generalization, mixed method with sequential paradigm should be used; (2) Sample size may also pose limitations to a more comprehensive understanding of the research problem (3) the language barrier of the author limits the scope of the research sources on the phenomenon in the given context, such as some publicly available university documentation and a number of programme's administrative documentation; (4) The literature review in this study is limited and does not represent the whole body of the research on interdisciplinary education and integrated teaching. It is also limited to publications and books in the English language solely.

## 12.4 Major findings

The research suggests that once portrayed as “an interdisciplinary programme”, IMDP tends to exhibit more qualities of multidisciplinary programme with lower levels of integration (juxtaposition of the disciplines in the curriculum with the thematic but disciplinary design, (sequencing mode of alignment); little actual formal/informal academic staff interaction on the individual courses and lectures' contents for more linear and comprehensive approach; variation in perception of the disciplinary and interdisciplinary objectives of the programme along with differences in definition of interdisciplinarity among the teaching staff).

However, despite these results, the study highlights important findings that can enrich our understanding of interdisciplinary academic collaboration in teaching in particular within the scope of the given case study. Following the sub-questions, the finding concludes the answer to the central research question as the following:

Differences in conceptual understanding of interdisciplinarity adds to the variation in perception of the role of individual faculty members in students' interdisciplinary learning process, which in turn shapes the view on the importance of interdisciplinary academic collaboration in teaching. The definitions varied from attributing additive contextual value to interdisciplinarity as an encyclopaedic form (or *indiscriminate ID*) to seeing interdisciplinarity as the process of exchange of methodological tools and instruments to enhance the practices in one discipline (*Pseudo ID*), both being close to multidisciplinary. Seeing interdisciplinarity reduced to informed juxtaposition of the disciplines, the faculty predominantly sees less need of their involvement in the students' knowledge integrative process, especially on graduate level, which does not support the view of Latucca (2004), who advocates the key role of the instructor in interdisciplinary learning process in all level of education. As the research indicates, *the role of the instructor on average follows the disciplinary objective* to transfer the knowledge from one discipline as accurately and precisely with as little compromise of "depth" as possible.

Nonetheless, interdisciplinary academic collaboration in teaching is found to be beneficial for students' effective transition between disciplines as well as for strengthening the instructors' interdisciplinary research potential.

- For the students: building the connections between disciplinary inputs, to critically assess/ identify inconsistencies in the perspectives and building a rapport between previous disciplinary inputs and new ones; increased curiosity about the object of the lecture/course and higher emotional engagement in the lecture/course;
- For the faculty: development and growth in terms of understanding of the boundaries of their own disciplines, critical reflection on their disciplinary perspectives and personality traits (openness to experiences). However, higher intensity and more conventional character of interdisciplinary collaboration in research (in comparison with teaching as traditionally individual activity) prompted the instructors to see the



gains from interdisciplinary joint activities in connection to instructors' own research skills and potential, supporting traditional perception of superiority of research activities in academic profession.

Shared understanding and beliefs in the importance in the interdisciplinary joint teaching is the core condition for quality collaborative activities and can serve as the greatest barrier. Yet, the institutional environment and programme's organization can constrain interdisciplinary academic collaboration in teaching not less than the internal intragroup processes. While this research supports previous findings, that *agreement with disciplinary logic* (see Table 1) presents a serious constraint for an effective and reflective interdisciplinary teaching collaboration, it also emphasizes that the environment and organizational factors can as well significantly threaten the success of such collaborative activities. The barriers are on various levels: (1) on the university level, *inflexibility of organizational structure (rigid disciplinary structure)* serves as a significant barrier to interdisciplinary teaching activities; (2) on center's level, *temporary membership base and double affiliation of the staff to the faculty and the center* further fosters the segregation of the social group within the institution; (3) the programme level: *Formal centralization of the programme outside of the center* restricts the offering of tailored courses to the students of the interdisciplinary programmes, since they need to be aligned with the needs of the school the programme officially belongs to. *Lack of systematization of interdisciplinary approach and alignment of disciplinary and interdisciplinary objectives* by the programme coordination in curriculum design diminish the perception of the need for the collaborative activities.

Even though in conflict, both contextual and internal processes open the space for interdisciplinary joint teaching. A number of contextual characteristics set the ground for the desire and opportunities to collaborate in interdisciplinary teaching effectively, such as: *institutional recognition of interdisciplinary activities* with a dedicated focus on interdisciplinary research, *developed infrastructure for interdisciplinary research* at the center level (which ultimately translates into teaching activities), *experienced in interdisciplinary inquiries leadership* of the programme as well as *diversity in teaching staff and student body* ascribed by the programme's profile.

Despite individual faculty tendency towards prioritizing disciplinary objectives in teaching at the programme, all representatives *recognize the competences of other disciplinary groups*

(*interdisciplinary logic*), especially in involved into common research projects. The beliefs in the benefits, discussed above, as intragroup processes, are the major drivers of collaborative activities in teaching. When the *proximity between disciplines* is perceived as relatively manageable and the *subject of collaboration (the topic the lectures about)* are of higher relevance, it has been noted that the faculty is motivated to overcome the disciplinary boundaries and attempt to create a common group for interdisciplinary exchange with students through teaching.

The summary of the results is presented in the table 1.

Table 1. List of barriers and enablers to interdisciplinary collaboration in teaching in IMDP

Sets of variables	Barriers to Interdisciplinary academic collaboration in teaching in IMDP	Enablers of Interdisciplinary academic collaboration in teaching in IMDP
<b>Contextual</b>		
Characteristics of the university	inflexible organisational structure	comprehensive specialization and institutional recognition of on interdisciplinary activities;
Characteristics of the center	temporary membership/double affiliation to the faculties and the center;	- comprehensive specialization and interdisciplinary focus; - developed infrastructure for interdisciplinary research
Characteristics of the programme coordinator		- interdisciplinary research and teaching experience; - high level of recognition among colleagues
Structural characteristics of the programme	- formal centralization of the programme outside the center; - theme-based modular curriculum design; - lack of systematization of courses' and individual lectures content and systematization of interdisciplinary teaching objectives within the courses;	diverse staff composition and student body composition:
<b>Intragroup processes</b>		
Understanding of interdisciplinarity and interdisciplinary HE	- lack of unified definition of interdisciplinarity; - variations in attitudes towards interdisciplinary HE;	
Beliefs in benefits of academic collaboration in teaching		- positive effect on student's development; - positive effect on teaching staff development
Social intergration within the group	- existence of hierarchy and unequal relationships between the disciplines and disciplinary groups; - lack of social cohesion	- high level of motivation to work with other disciplinary groups in research; - medium level of motivation to work with other

Sets of variables	Barriers to Interdisciplinary academic collaboration in teaching in teaching in IMDP	Enablers of Interdisciplinary academic collaboration in teaching in teaching in IMDP
		disciplinary groups in teaching
Level of conflicts	<ul style="list-style-type: none"> <li>- epistemological differences;</li> <li>- incompatibility of disciplinary objectives of the disciplinary group and interdisciplinary objectives of the programme;</li> <li>- high level of disciplinary affiliation</li> </ul>	
Agreement with disciplinary logic	<ul style="list-style-type: none"> <li>- incompatibilities of objectives;</li> <li>- one's perception of insufficiency of their expertise in other disciplines</li> </ul>	
Agreement with interdisciplinary logic		<ul style="list-style-type: none"> <li>- recognition of the competences of other disciplinary groups and mutual competences;</li> <li>- confidence in the expertise of different disciplinary groups</li> </ul>
Workgroup design characteristics	<ul style="list-style-type: none"> <li>- Low intensity of formal and informal meetings and discussion on the content and course delivery between disciplinary groups;</li> <li>- lack of systematization of courses' content and interdisciplinary teaching objectives;</li> <li>- no availability of training/educational activities on interdisciplinary teaching;</li> </ul>	<ul style="list-style-type: none"> <li>- involvement in common research projects;</li> <li>- relative involvement of the administration of the programme into facilitation of ID exchange in teaching</li> </ul>
Nature of the task	<ul style="list-style-type: none"> <li>- complimentary to research nature;</li> <li>- confusion in the identification of the instructors' role in the teaching process;</li> </ul>	<ul style="list-style-type: none"> <li>- close proximity between the disciplines;</li> <li>- relevance and the perceived demand for an interdisciplinary field</li> </ul>

#### 12.4.1 Recommendations

The following set of practical recommendations is proposed for the programme level coordination:

1. To ensure shared definition of “interdisciplinarity” and communicate the objectives of interdisciplinary higher education among the teaching staff through formal and informal meetings.
2. To create awareness about the differences between disciplinary and interdisciplinary approaches to teaching through dedicated seminars, workshops, newsletters.
3. To emphasize the importance of interdisciplinary collaboration in teaching for the students and the staff development through recognition of best practices.

4. To reconsider the curriculum: align the objective of the courses and the objectives of the programme through tailoring courses and soft adjustment of the objectives of the individual lectures in individual discussion between the coordinators of the programme and the teaching staff members.
5. To introduce more systematic approach to joint courses in the curriculum with incentivised form of engagement.
6. To strengthen the teaching community and social cohesion through joint extracurricular activities with students.

#### Recommendations for further research:

1. As the research indicates, the role of the individual professors in teaching in interdisciplinary programme is not seen substantially different from the disciplinary teaching role, which can be attributed to confusing interdisciplinarity and multidisciplinary. More research is needed to clearly address the differences between the roles of the faculty in interdisciplinary and disciplinary programmes.
2. As the literature review identified, more research is needed on the integrative teaching practices and interdisciplinary collaborative practices in teaching specifically in higher education.
3. As an under researched phenomenon, more qualitative and quantitative research on the conditions for successful interdisciplinary collaboration, enablers and constraining factors that influence the intensity and quality of collaboration in teaching activities are needed. A mixed study with a larger sample and the possibility to assess the correlational relationship between the organizational and professional variables and the outcomes and further qualitative inquiry.
4. This study revised an instrument - an analytical framework for interdisciplinary collaboration and tested it in new environment - teaching. The study also generated sets of factors, that now can be used for a quantitative study, to confirm or disprove the results on a larger sample of population.

#### 12.4.2 References

Boix Mansilla, V., Lamont, M., & Sato, K. (2016). Shared cognitive–emotional–interactional platforms: markers and conditions for successful interdisciplinary collaborations. *Science, Technology, & Human Values*, 41(4), 571-612.

Bradbeer, J. (1999). Barriers to interdisciplinarity: Disciplinary discourses and student learning. *Journal of Geography in Higher Education*, 23(3), 381-396.

Bryant, L. H., Niewolny, K., Clark, S., & Watson, C. E. (2014). Complicated Spaces: Negotiating Collaborative Teaching and Interdisciplinarity in Higher Education. *Journal of Effective Teaching*, 14(2), 83-101.

Creswell, J. W. (2009). *Research design: Qualitative and mixed methods approaches 3<sup>rd</sup> edition*. London and Thousand Oaks, CA: Sage Publications.

Frodeman, R., Klein, J. T., & Pacheco, R. C. D. S. (Eds.). (2017). *The Oxford handbook of interdisciplinarity*. Oxford University Press.

Hatch, J. A. (2002). *Doing qualitative research in education settings*. Ithaca, NY: State University of New York Press.

Ivanitskaya, L., Clark, D., Montgomery, G., & Primeau, R. (2002). Interdisciplinary learning: Process and outcomes. *Innovative Higher Education*, 27(2), 95-111.

Kezar, A. (2005). Redesigning for collaboration within higher education institutions: An exploration into the developmental process. *Research in Higher Education*, 46(7), 831-860, doi:10.1007/s11162-004-6227-5

Lattuca, L. R., Voigt, L. J., & Fath, K. Q. (2004). Does interdisciplinarity promote learning? Theoretical support and researchable questions. *The Review of Higher Education*, 28(1), 23-48.

Newell, W., & Green, W. (1982). Defining and teaching interdisciplinary studies. *Improving College and University Teaching*, 30(1), 23-30.

Repko, A. F., Szostak, R., & Buchberger, M. P. (2016). *Introduction to interdisciplinary studies*. Second edition. Sage Publications.

Ritchie, J., & Spencer, L. (2002). Qualitative data analysis for applied policy research. *The qualitative researcher's companion*, 573(2002), 305-329.

Rowan, B. (1994). Comparing teachers' work with work in other occupations: Notes on the professional status of teaching. *Educational Researcher*, 23(6), 4-17.

Sicotte, C., D'Amour, D., & Moreault, M. P. (2002). Interdisciplinary collaboration within Quebec community health care centres. *Social science & medicine*, 55(6), 991-1003.

Spelt, E. J., Biemans, H. J., Tobi, H., Luning, P. A., & Mulder, M. (2009). Teaching and learning in interdisciplinary higher education: A systematic review. *Educational Psychology Review*, 21(4), 365-378.

Weinberg, A., & Harding, C. (2004). Interdisciplinary teaching and collaboration in higher education: A concept whose time has come. *Wash. UJL & Pol'y*, 14, 15.

Yin, R. (2003). *Case study research*. Thousand Oaks, CA: Sage Publications.