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Marie Brennan

Technological University Dublin, marie.brennan@tudublin.ie

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Developing a Theoretical Framework for Policy Development, Implementation and Evaluation

Marie BRENNAN¹

Department of Computing, Institute of Technology, Blanchardstown

Abstract. Three institutes ITT, ITB and DIT explored the benefits of collaborating and seeking designation as a technological university for Dublin following the publication of the Hunt Report in 2011. A high-level steering group was formed that would guide the alliance partners towards the goal of Technological University for Dublin. Support teams and working groups were set up to draw on the expertise of staff from across the 3 institutes. One workshop was set up to discuss the development of a teaching, learning and assessment strategy for a technological university. Further research carried out into the creation of a teaching, learning and assessment strategy shifted to policy formation and implementation that precede this type of strategy and discovered issues in relation to policy gaps and evaluation methods. This paper reflects on how the focus shifted to policy formation and evaluation. This work provided the motivation for a study to examine how higher education policy is formed and implemented and staff attitudes, experiences and perspectives on this. The aim of this work is to develop a theoretical framework that would inform policy formation and optimize impact on higher education practice. This paper will outline the methods used to capture the experiences of staff across these three institutes in policy development, implementation and evaluation. Grounded theory qualitative methods will be used to discover the core areas of concern of the staff across the three institutes and to develop a theoretical framework that can be used to inform policy formation particularly for a new technological university.

1. Introduction

In 2006 the OECD reviewed policy formation in Higher Education in Ireland. In the report a number of recommendations for third level education in Ireland were outlined. One of the suggestions made in the review was that Ireland should have a “strategic agenda for change in the third level education sector and most importantly, the alignment of such a strategic agenda with policies for investment and funding” [11].

In 2011 the National Strategy for Higher Education to 2030 was published. This report suggested that a “framework should be put in place to encourage and facilitate institutional mergers” [7, pg. 99]. Following on from this report DIT², ITB³ and ITT⁴ signed a memorandum of understanding establishing the Technological University for

¹ Marie Brennan, Department of Computing, Institute of Technology, marie.brennan@itb.ie, Blanchardstown, Dublin, Ireland

² Dublin Institute of Technology

³ Institute of Technology Blanchardstown

⁴ Institute of Technology Tallaght

Dublin alliance. The 3 presidents of the above institutes formed a high-level steering group that would guide the alliance partners towards the goal of Technological University for Dublin.

The steering group⁵ established an implementation team drawn from across the alliance partner's institutes. In 2014 the implementation team launched the foundation themes that would be necessary to meet the criteria for designation as a technological university. Support teams and working groups were set up to draw on the expertise of staff from across the 3 institutes to develop these themes. The focus centered on the development of a teaching, learning and assessment strategy and the role of all stakeholders involved such as students and educators as well as management, HR etc. The objective was to inform policy in the development of a teaching, learning and assessment strategy. The aim was to study other institutes and focus on their underpinning teaching, learning and assessment strategies.

During the literature review into educational strategy, the precursor to these strategies became the focal point, and that was policy formation. This was an organic but inevitable process. Some issues such as gaps in policy development and implementation and issues relating to policy evaluation came to the forefront of the research.

The aim of the research is to study and investigate academic, lived experiences and perspectives on policy implementation, development and evaluation across three institutes of technology in Dublin. Data will be gathered through focus groups, online surveys and one to one interviews with staff across the three institutes.

The objectives of the research are to:

1. Identify core issues in relation to policy development
2. Develop a theoretical framework to inform policy development
3. Investigate the impact of organizational structure and culture on the perception of policy development and include these in the framework.

The following sections will outline the methodology that will be used to carry the research and the processes involved in the development of a theoretical framework.

2. Methodology

The research focuses on policy from the perspective of development, implementation and evaluation. The aim is to develop a theoretical framework for policy development and implementation. Data will be gathered using an online survey, focus groups and one to one interviews with staff from the three campuses that will be invited to take part in the research. These interviews will be carried out with policy writers, academics and administration staff. The objective of this is to observe core areas of concern regarding policy development, implementation and evaluation across the three institutes and suggest a framework that can be used for future policy development based on these core concerns.

The data is being gathered from staff and academics across the three institutes of Technology in Dublin that include the Institute of Technology in Tallaght, Dublin Institute of Technology and the Institute of Technology in Blanchardstown. These staff

⁵ Professor Brian Norton, President of DIT, Dr. Mary Meaney, President of ITB, Mr. Thomas Stone, President of ITB

comprise of heads of department, senior lecturers and lecturers as well as administration staff. Initial focus groups were set up with staff and then one-to-one interviews will be carried out. The interviews will be recorded and then, through the process of coding, the core areas of concern are categorized and compared.

The subject topics that will be discussed will include:

1. Awareness of the process of development of national policy as well as local policy
2. Personal experiences in policy development, implementation and evaluation
3. Language used in policy documents
4. Compliance
5. Concerns about future policy development, implementation and evaluation – in particular within an institute in transformation
6. The impact organizational structure and culture has on policy development, implementation and evaluation

An online survey will also be distributed to staff in the three institutes. (Charmaz, 2006) recommends that grounded theory should be compounded with some quantitative data for analysis and the survey will do that. This survey will provide details of how each of the three institutes independently approach policy development and implementation at a particular point in time. The data collected will also provide useful information on staff awareness of policy development and effectiveness across these three institutes. The survey will generate quantitative data that will provide a heated diagram for comparing awareness across the 3 institutes and can also be compared with interview and focus group data as it emerges.

Staff will also be given the option to take part in focus groups as an alternative to one to one interviews. According to (Pearson and Vossler, 2016) [13] focus groups can be effective in determining attitudes, opinions, and experiences relative to a specific context and are relatively time and cost efficient, which is why they were justified for the cross campus interviews carried out in this research.

However, there are also potential limitations according to Pearson & Vossler with this method, such as a reduced opportunity to participate for individuals and increased likelihood of conformity in the group setting. However, the participants are staff who draw on each other's experiences and the setting for a focus group so far has allowed them to recall their own experiences through other participant's narratives.

2.1. Grounded Theory

The process that will be used for data gathering and analysis will use grounded theory methodology. The "theory" that will emerge is grounded in the data. It was introduced by Barney Glaser and Anselm Strauss in 1967 in a book entitled "The Discovery of Grounded Theory: Strategies for qualitative Research". This is the preferred methodology for this project as it is an authentic way of capturing the voice of the participants that in turn generates rich data. This "rich data" reveals participants' views, feelings, intentions, actions and context structures of their lived experiences. The research inquiry will seek descriptions through field notes, observations, written personal

accounts, detailed narratives and through interviews. The research will follow a constructivist grounded theory approach with some pre-defined themes that relate to development, implementation and evaluation of policy.

Grounded Theory “is an inductive, theory discovery methodology that allows the researcher to develop a theoretical account of the general features of a topic while simultaneously grounding the account in empirical observations or data” [10]. Grounded Theory provides a detailed, rigorous, and systematic method of analysis, which has the advantage of reserving the need for the researcher to conceive preliminary hypotheses. It therefore provides the researcher with greater freedom to explore the research area and allow issues to emerge ([2][4] 1978, 1992, 1998, 2001).

The three basic elements of grounded theory are concepts, categories and propositions. According to [14, 1990] concepts are the basic units of analysis since it is from conceptualization of data, not the actual data that the theory develops. According to [12] theories cannot be built with actual incidents or activities as observed or reported, that is, from “raw data”. The incidents, events, happenings are taken as, or analyzed as, potential indicators of phenomena, which are thereby given conceptual labels [12].

The second elements of grounded theory as described by Corbin & Strauss are categories. According to them categories are higher in level and more abstract than the concepts they represent. They are generated through the process of making comparisons and highlighting similarities between the categories to develop lower level concepts. According to Pandit categories are the cornerstones of a developing theory.

The third element of grounded theory is propositions. These propositions indicate generalized relationships between a category and its concepts and between discrete categories [12]. (Glaser & Strauss, 1967) [4] originally termed these as hypotheses. But as (Whetten, 1989) [16] mentioned, propositions involve conceptual relationships whereas hypotheses require measured relationships and so propositions are a preferred term to describe this part of the process.

Grounded theory describes developing the elements above in three stages that include open coding, selective coding and theoretical coding.

According to (Jones & Alony, 2011) these stages result in themes, sub-categories and core categories. These results then guide the subsequent sampling of participants through theoretical sampling. Theoretical sampling is where new participants are sourced based on the results of previous data samples taken. So new questions may be generated from an interview and tested on new participants to compare results.

The next stage then is selective coding. According to Jones & Alony this stage results in dense, saturated core categories. (Strauss & Corbin, 1967) [14] depicted that grounded theory is designed to guide researchers in producing theory that is conceptually dense, and they describe dense as the theory having many conceptual relationships – they are “embedded in a thick context of descriptive and conceptual writing” (Glaser & Strauss, 1967 & Strauss, 1987).

2.2. Open Coding

Open coding is also known as initial coding. This can be carried out line-by-line or word by word. It breaks the interview up into discrete threads of datum (Jones & Alony, 1996). All data is included at this stage. This allows the researcher to look for patterns that may lead to social processes, which may be of eventual interest (Jones and Alony, 1996). As the categories begin to fill, those that are most dense become known as core categories

(Glaser, 2001). Through this process core categories build up to become the core focus of theoretical articulation through the development of a basic social process [4].

2.3. Selective Coding

This phase of coding is also known as focused coding. These codes are more directed, selective and conceptual than word-by-word, line-by-line and incident by incident coding [4]. Selective coding is reached when core categories become apparent. A core category is a category that emerges through analysis of the codes after open coding that explains most of the variations which represent the participants’ major concern (Jones & Alony, 2011) The core category should be an issue upon which the basic social process is centered. It should relate meaningfully and easily to other categories. It should have clear and grabbing qualities [4] Glaser & Holton, 2004).

Selective coding allows the researcher to filter and code data, which are deemed to be more relevant to the emerging concepts (Jones & Alony, 2011). Therefore, only the most pertinent passages of a transcript are used and coded. To facilitate this, interview questions are continuously reformulated to encompass the new and more focused direction of the research (Jones & Alony, 2011).

2.4. Memo-ing

Glaser refers to memo-ing as “the core stage in the process of generating theory, the bedrock of theory generation” [4]. Memos are used to develop ideas, note taking and constant comparison. These ideas should develop freely, should be stored centrally, and should be sortable [4, p. 83]. According to (Charmaz, 2006) memos compare data and explore ideas about the codes and direct further data gathering. The more you work with data and codes, the more analytical that you treat them. The following diagram illustrates the process whereby data collection, note taking, coding and memo-ing is an iterative process that is carried out on the data gathered and that the outcomes of each interview are constantly compared for similarities.

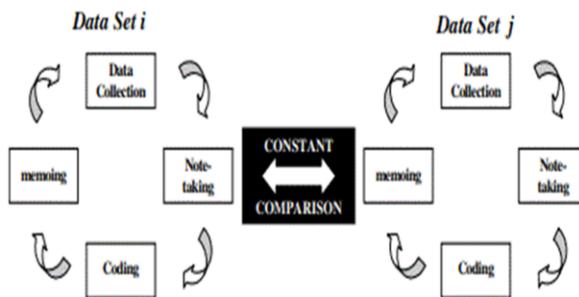


Figure 1. Constant Comparison (derived from Glaser & Strauss, 1967; Glaser, 1978; 1992; 1998; 2001)

2.5. Theoretical Coding

The final stage of coding is known as theoretical coding. Theoretical coding occurs when core categories have become saturated. Eventually, after a period of data collection, a point is reached where no new data result from additional data collection. This is known as data saturation, when you are yielding no new categories or issues of concern. Theoretical coding examines these saturated categories and provides the researcher with analytical criteria for the development of conceptual relationships between categories and their relevance to the literature (Glaser, 1992; 2005; Glaser & Kaplan 1996).

They help the analyst maintain the conceptual level in writing about concepts and their interrelations” (Glaser & Holton, 2004). (Glaser 1978, 1998, & 2005) identifies 50 families of theoretical codes to identify what he calls “latent patterns” (Glaser, 2005).

2.6. Basic Social Process and Theoretical Model

The final result of the research using Grounded Theory as a method of qualitative analysis will be a model depicting the basic social process (Jones & Alony, 2011). A basic social process is a core category that has been developed through densification⁶ and is found to substantially represent a major social process of the phenomenon under study. (Jones & Alony, 2011). It is through the articulation and explanation of this basic social process that the explanatory theory emerges. “To qualify as a basic social process the category must have two or more clear emergent stages”[4].

Basic social processes should reflect and summarize the patterns of behaviour, which are fundamental to the phenomena, taking into account the moderating variables, which work to alter the process (Jones & Alony, 2011).

Basic social processes are not only durable and stable over time, they are also flexible enough to accommodate for temporal change – or change over time – maintaining an interchangeable consistency in meaning, fit, and workability through the addition of new conditions and stages which account for the changing environment [4]. A basic social process focuses only on those variables that are related to the core category and those which are necessary in “relation to resolving the problematic nature of the pattern of behaviour to be accounted for” [4, p. 93]. The following diagram illustrates the process and outcomes of each stage of the grounded theory methodology as discussed.

The theories that result from the use of a grounded theory methodology are formulated to explain, predict, and understand phenomena and, in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions [1][15]. According to Abend and Swanson the theoretical framework is the structure that can hold or support a theory of a research study. The theoretical framework introduces and describes the theory that explains why the research problem under study exists.

⁶ Theory having many conceptual relationships

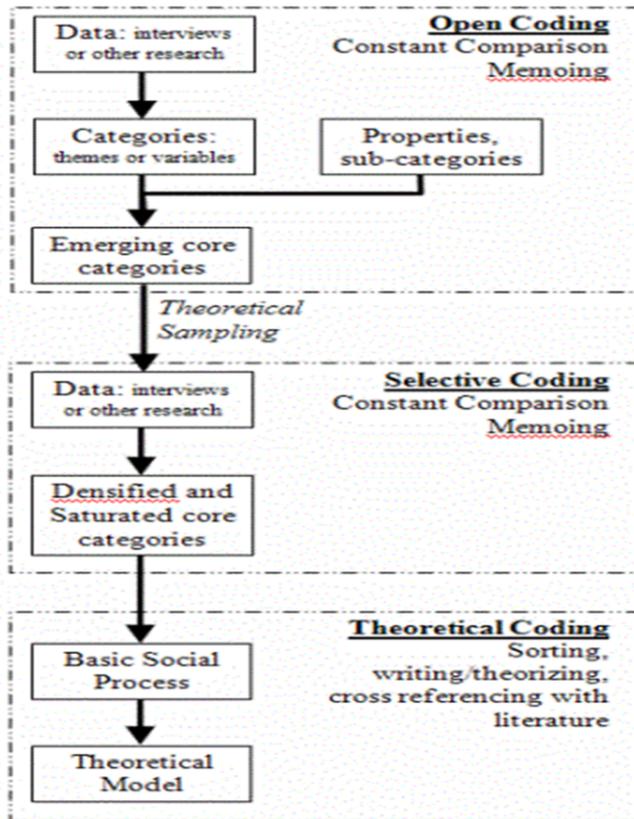


Figure 2. The Process of Grounded Theory

3. Data Analysis

Using grounded theory, the data is gathered and analyzed simultaneously. Data is being gathered from multiple sources that include interviews, focus groups and online surveys. As data is gathered the process of open coding, selective coding and theoretical coding takes place. Constant comparison and memo-ing are ongoing in the process. Nvivo software will be used to store the data gathered as well as literature and will be used for the above processes and for comparison of findings. Theorists such as Glaser and Strauss will be referenced during this phase of the research. As the theory emerges from the data comparisons to other social theorist’s habitus or theories will be drawn on. These theorists will include, and will not be limited to, Pierre Bourdieu, Andrew Marshall Pettigrew and Michal Foucault. The differences and comparisons will also be used in the development of the framework. Their work will provide pathways for an in-depth look at how the framework could be created.

4. Building the theoretical framework

(Grant & Osanloo, 2014) [5] describe a theoretical framework as the “blueprint” for the entire research inquiry, it serves as the guide on which to build and support the study, and also provides the structure to define how you will philosophically, epistemologically, methodologically, and analytically approach the research as a whole. (Eisenhart, 1991) defined a theoretical framework as “a structure that guides research by relying on a formal theory constructed by using an established, coherent explanation of certain phenomena and relationships”.

Lovitts (2005) [9] empirically defines criteria for applying or developing a theory to the research that must be appropriate, logically interpreted, well understood, and align with the question at hand. The table below illustrates the processes that will be applied in the development of the framework. The table has been adapted from a similar table that was illustrated by Naresh Pandit, 1996 in a report entitled “The Creation of Theory: A Recent application of the Grounded Theory method”.

Table 1. A Recent Application of Grounded Theory.

Phase	Activity	Rationale
Research Design	Definition of research question	Focus efforts
Data Collection	Employ multiple data collection methods (qualitative and quantitative methods) Survey, focus groups and interviews.	Increases reliability, strengthens the grounded theory by triangulation of evidence [12]
Entering the field	Overlap data collection and analysis	Speeds analysis and reveals helpful adjustments to data collection [12]
Data Analysis	Open Coding	Develop concepts, categories and properties
	Axial coding	Develop connections between categories and sub-categories
	Selective coding	Integrate categories to build theoretical framework. All forms of coding enhance internal validity [12]
Theoretical Sampling	As data is being gathered and compared to form the above categories an on-going process called theoretical sampling takes place. Theoretical sampling regards the process of data collection, where new targets for data collection are directed by the results collected from the preceding sample. (Jones & Alony, 2011). This continues until data saturation is reached, as in, no more new data arises.	Confirms, extends and sharpens the theoretical framework [12]
Step-6Lit. Comparison	Comparisons with similar and conflicting frameworks / theories	Establishes the domain to which the study's findings can be generalized. [12]

The research project is currently between phase 3 and phase 4 as illustrated in table 1. Data is being gathered through a series of one to one interviews, focus groups and an online survey. Theoretical sampling is on going in this process. Survey results are being gathered and imported into Nvivo for analysis. Nvivo is being used as a repository for data. It is a comparative tool that will be used to analyze the codes and compare the

results of all the data collected. Focus groups and interviews have commenced. Data analysis has commenced with open coding. Line by line open coding has been applied. Some emerging codes have resulted in new targets for future interviews.

5. Conclusion

This paper has reflected on how events organized to work on the future framework for the Technological University for Dublin motivated the research being carried out. Further literature reviewed after the feedback from these workshops led to a focus on policy implementation, development and evaluation. The objective of the research is to study policy awareness and implementation across the three institutes of technology in Dublin. The methodology will be quantitative through a series of online surveys that will observe policy awareness across the three institutes. A series of heated diagrams will be used to compare this data. Interviews and focus groups will also be carried out. Grounded theory methodology will be used for data gathering and analysis. Once data is gathered it will be analysed through the process of coding. Coding will be line by line. From this core categories will emerge. Following on from this selective coding of the interviews will take place until densified and saturated core categories emerge. Constant comparison and memo-ing are ongoing in the process as well as theoretical sampling. Once saturation occurs the basic social process and theoretical model develops. At this time sorting, writing, theorizing and cross referencing with literature will take place. Comparisons and contrasts with literature and existing theories take place to validate the research internally and externally and to develop the theoretical framework. The project is a work in progress at this point in time. Survey results have been gathered and imported into Nvivo for analysis. Interviews have taken place across the three campuses as well as one focus group. More focus groups will take place in the coming months. A paper titled "The Evolution of a New Technological University in Terms of Policy[8] quoted Barrett (2000) who wrote about the complexities of the universities in what he describes as an "age of super complexity". Barrett suggests that universities must not only respond to changing environments but they must also make a creative contribution. If we make a change to or within a university as staff or students, we must be involved and contribute to this change and be creative in our endeavor. This is important for the three institutes to come together to create polices for the new technological university and that the stakeholders are involved. This research will listen to the voice of the educators to determine areas of concern with regards to current practices across the three campuses in question. It is important that there should be emphasis placed on evaluation of the policies that will be implemented. Evaluation helps to assess the strengths as well as weaknesses of a policy and this knowledge can then be used for the future design and formulation of new prospective policies. (Savio, N. & Nikolopoulos, K. 2010). The feedback received through the survey, focus groups and interviews will provide invaluable data that can be analyzed and used in the development of a theoretical framework that could inform policy in the future.

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