

Curriculum development of the teacher education
program at the University of Turku

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Abstract

Curriculum development is a complex phenomenon and understanding the dynamics of curriculum planning will help create a sound curriculum that responds to students' needs and the society in which they live in. Moreover, teachers play a vital role in developing the curriculum in the Finnish context. Therefore, this study aims to investigate the complex processes and patterns underlying the curriculum development of the teacher education program at the University of Turku. It also examined the implementational changes that were made during the curriculum reform in 2016 and the plausible influencing factors or change drivers. Qualitative Content Analysis (QCA) was used to analyze the qualitative data which was collected by interviewing seven academics from the faculty of education at the University of Turku. The findings revealed that the curriculum development model of the teacher education program revolves around Empathy and consists of these stages- Situation analysis, Ideating/Planning, Implementing the prototype and Evaluation. Thus, it was concluded that the curriculum development model in this study employs the mindset of 'design thinking' after comparing these two models. The results also pointed out the various problems or challenges that exist in teacher education as well as possible solutions.

Key words: curriculum development, design thinking, teacher education curriculum

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1. Introduction

It is vital for an institution to have a sound curriculum that addresses the needs of students in the society and the era in which they live. Outdated curricula that do not respond to the needs and interests of students or reflect the societal and cultural contexts may make learning less meaningful and irrelevant. Therefore, it could be clearly said that curriculum planning is of great importance in a teaching-learning environment to promote successful learning and motivation in students.

Indeed, there is a growing body of literature that recognizes the importance of curriculum development in the field of education and many empirical studies have been conducted on the topic in different disciplines around the world (see Fey, J., Wheeler, D., et al. 1982, Cheung, D., & Wong, H. 2002, Chen, X. 2012). There is also a comparative study done on teacher identity and curriculum change in Finland and England. (see Vulliamy, G., Kimonen, E., Nevalainen, R., & Webb, R. (1997). In the context of Finnish teacher education, Guajardo Brenda's research in 2014 sheds light on the academic's perceptions about the effectiveness of the teacher education curricula in the University of Turku, Finland and the University of Regensburg, Germany.

However, there are not many research studies examining the curriculum development process of the teacher education program in Turku University. Indeed, developing a curriculum comprises several steps and different stakeholders are involved in making decisions about a curriculum. In the Finnish context, it may be the faculty or school board, administrators and teachers. Moreover, feedback from students is also taken into consideration when planning a curriculum at the university.

Undeniably, it is important to know the processes involved in developing a curriculum as understanding these dynamics will help in creating a curriculum that is most effective and suitable to the socio-cultural context one is in. Thus, the purpose of this research study is to discover the underlying complex processes and patterns in the curriculum development of the teacher education program at Turku University and to

understand different aspects that are interrelated in curriculum planning. Additionally, this research aims to find out what kind of factors determine changes in the curriculum and to examine the existing challenges in the development of the teacher education curriculum so that a relevant curriculum could be designed for future students.

2. Theoretical framework

2.1 Overview of curriculum development

The term curriculum can be defined in many ways while being generally understood as the subjects or courses offered by an institution. Ralph Tyler (1957) defined curriculum as, “all the learning experiences planned and directed by the school to attain its educational goals.” (as cited in Aliyeva 2016 p.13). However, it is also possible to interpret the term much deeper and more thoroughly by trying to define the elements in it. One such meticulous definition comes from an online article posted on ‘The glossary of education reform’:

Depending on how broadly educators define or employ the term, curriculum typically refers to the knowledge and skills students are expected to learn, which includes the learning standards or learning objectives they are expected to meet; the units and lessons that teachers teach; the assignments and projects given to students; the books, materials, videos, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate student learning. An individual teacher’s curriculum, for example, would be the specific learning standards, lessons, assignments, and materials used to organize and teach a particular course. (The glossary of education reform, 2015)

This broad and comprehensive explanation covers several umbrella terms and reflects the general notion of what a curriculum is. In fact, the concept of curriculum is so vast and varied that different people will have different interpretations of what constitutes a curriculum. According to David Prideaux (2003 p.268), at least four important elements can be found in a curriculum: “content, teaching and learning strategies, assessment and evaluation processes.” Prideaux described the three levels of curriculum as: “what is planned for the student, what is delivered to the students and what the students experience.” The figure below provides a visual explanation.

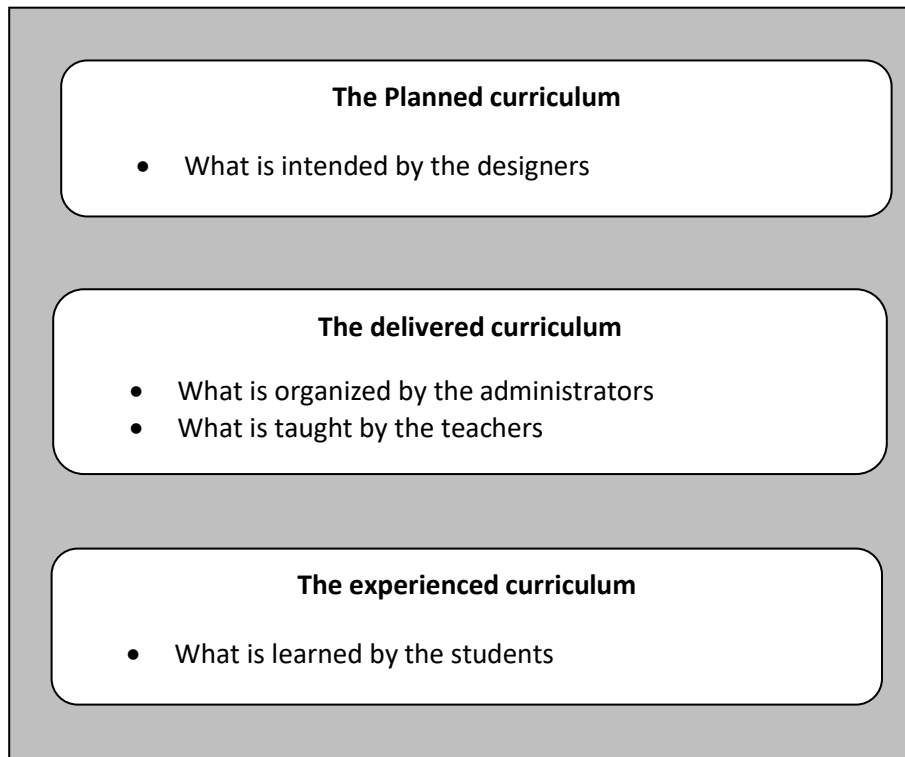


Figure 1. Three levels of a curriculum (Prideaux 2003 p.268)

Curriculum development has also been interpreted in different ways among scholars. According to Murray Print (1993 p.23), “Curriculum development is the process of planning, implementing, and evaluating learning opportunities intended to produce desired changes in learners.” Indeed, planning and developing a curriculum is a continuous process. It is a complex phenomenon where constant evaluation, reflection, refining and modification are continuously undertaken. This is due to the fact that the world is constantly changing, and societies need to make adaptations and adjustments to new situations and advancements. Therefore, it is essential to follow and understand new developments in education and create updated course books, teaching strategies, and activities, etc.

A question to be raised here is: How should the teacher training curricula respond to challenges in education? As the world around us is changing all the time, it becomes

inevitable to keep up with the recent trends in teaching, technology and curriculum planning. In general, curriculum issues that need to be taken into consideration:

“What to teach?

How to teach?

When to teach?

What is the impact of teaching?” (Print,1993, p.1)

In planning a curriculum, these issues should be well-thought-out as they may greatly affect the learning outcomes of students. It is highly important for educators, curriculum planners and teachers to know what content students should study in a subject, what strategies would be effective in teaching students with different abilities and backgrounds, and when a certain theme or lesson should be taught. Moreover, it is crucial to understand the objectives of a lesson as well as the needs of students.

The curriculum plays a great role, but it is the teacher who has the ultimate power and the ability to make a positive impact on the academic life of students. This is because the knowledge and expertise of a teacher can make a difference in the classroom. Teachers should understand the notions of language and cultural diversities in an academic setting to create a comfortable learning zone for all students. For example, some problems student teachers may face in Finland nowadays are related to the increasing number of Immigrants and the integration of ICT into classroom teaching.

The impact of immigration will be widespread as it is happening nationwide, and the previous level of education immigrant students received, might not be on par with the education in Finnish schools. Consequently, teachers need to adapt their teaching methods and curriculum to avoid having cultural and language problems in classrooms. It is essential for a teacher to be culturally and linguistically responsive in teaching so that students from various social and economic backgrounds will have opportunities to thrive in their academic pursuits. Moreover, technology has become an indispensable part of classroom teaching in Finland today and so, teacher training needs to equip them with skills to deal with these challenges.

2.2 Curriculum development models

There are numerous models of curriculum development but only the most prominent ones will be discussed and outlined in similar categories. First of all, the product model of curriculum development was introduced by Ralph Tyler in 1949 and the focus of the simple four-steps model is on the outcomes or objectives. The steps in Tyler's 1949 model presented by Wiles and Bondi (2007) are as follows:

- “1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?” (Wiles and Bondi 2007 p.7)

Expanding Tyler's model, Hilda Taba (1962) created a seven-steps model which is also known as an inductive approach. Taba believed that “teachers should be the ones to develop the curriculum and implement in practice” as they are in the best position to know what their students need. (Läänemets and Kalamees-Ruubel 2013 p.4). The following is the outline of Taba's curriculum development model identified by Wiles and Bondi (2007):

- “1. Diagnosis of needs
2. Formulation of objectives
3. Selection of content
4. Organization of content
5. Selection of learning experiences
6. Organization of learning experiences
7. Determination of what to evaluate and means of doing it” (Wiles and Bondi 2007 p.8)

However, there were criticisms towards Tyler's rationale as some scholars argued that curriculum development is not a rigid and linear process. As a result, cyclical models came into existence and the prominent figures include D.K.Wheeler (1974) and, Audrey and Howard Nicholls (1978) . A cyclical model is seen as flexible because the curriculum development task can start from any point. Interestingly, the cyclical model "appears to have a significant connection to the objective models of curriculum" but the main difference would be that curriculum process happens in a cycle and is a continuous activity. (Newlyn 2016 p.59) Wheeler's cyclical model (1974) consists of the following phases as presented by Newlyn (2016):

- “1. Selection of aims, goals and objectives.
2. Selection of learning experiences
3. Selection of content
4. Organization and integration of learning experiences and content
5. Evaluation of each phase and the attainment of goals” (Newlyn 2016 p.60)

Next, Louise De Villiers (2001 p.35) presented the cyclical model by Nicholls and Nicholls (1978) which involves these steps – “Situation analysis, Selecting objectives; Selecting and organizing content; Selecting and organizing methods; and Evaluation.” According to Reading and Reid (2004 p.37), “this approach draws attention to the need for curriculum evaluation”. However, Lovat & Smith stated that “... simply because an approach is provided in a cycle, ... that does not transform it from being linear and unidirectional: a circle is simply a line with the ends joined together.” (As cited by Villiers 2001 p.35) This line of thinking and the understanding that processes should receive more emphasis than outcomes gave rise to process models.

Important scholars include Lawrence Stenhouse and Malcolm Skilbeck and this type of model is also known as dynamic models as the curriculum developer can start with any element in the model and proceed in any order. Stenhouse (1975) advocated the process model as he believed that “planning by objectives fundamentally misunderstands the nature of learning” (James 2012 p.4) First of all, he defined the concept of curriculum

along these lines: “A curriculum is an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice”. (Stenhouse 1975 p.4) In addition, Stenhouse beautifully compared a curriculum to a recipe in cookery. He stated:

A curriculum, like the recipe for a dish, is first imagined as a possibility, then the subject of experiment. The recipe offered publicly is in a sense a report on the experiment. Similarly, a curriculum should be grounded in practice. It is an attempt to describe the work observed in classrooms that it is adequately communicated to teachers and others. Finally, within limits, a recipe can be varied according to taste. So can a curriculum. (Stenhouse 1975 p. 4-5)

As a matter of fact, Stenhouse strongly emphasized the “wisdom or scholarship of the teacher” in developing a curriculum. (Stenhouse 1975 p.96). James 2012 has summarized the specifications regarding the curriculum development process presented by Stenhouse as follows:

- “1. Define the value positions in any curriculum specification
2. Specify curriculum in terms of content materials and method
3. Indicate training procedures for teachers
4. Define the contextual variables in schools, systems, environments that will affect realization in practice
5. List and test hypotheses regarding effects
6. Attempt to relate effects to contextual variables” (James 2012 p.10)

Skilbeck (1976) created the dynamic model in curriculum development and his approach is well known for focusing on “the importance of situation or context in curriculum design.” (Prideaux 2003 p.269) Skilbeck’s model consists of the following steps:

- “1. Situational analysis
2. Goal formation
3. Programme building
4. Interpretation and implementation
5. Monitoring, assessment, feedback reconstruction” (Reynolds & Skilbeck 1976 p. 109)

Furthermore, Reynolds and Skilbeck (1976) presented a detailed description of the external and internal factors included in situational analysis. These factors are summarized in a clear way by Prideaux (2003) as shown below.

External factors	Internal factors
<ul style="list-style-type: none"> • Societal expectations and changes • Expectations of employers • Community assumptions and values • Nature of subject disciplines • Nature of support systems • Expected flow of resources 	<ul style="list-style-type: none"> • Students • Teachers • Institutional ethos and structure • Existing resources • Problems and shortcomings in existing curriculum

Figure 2. Summary of the external and internal factors in situation analysis (Prideaux 2003 p.269)

Although these various curriculum development models may differ in their focus, approach or nature, it can be said that some basic important elements are still in common. Fundamentals such as ‘formulation of goals and objectives, selection and organization of content or learning experiences, evaluation’ can be found in almost all the models presented in the theoretical framework. Thus, in this paper, an attempt will be made to understand the various processes involved in curriculum development from ‘planning and implementation to evaluation’ of the teacher education curriculum in Turku University.

2.3 Teacher education in Finland

After the Second world war, Finland shifted from being an agrarian nation to a modern knowledge-based society. Pasi Sahlberg mentions that “it has been a long-term ideal in the Finnish society to provide good education for all Finnish children from early childhood to higher education levels”. (Sahlberg 2011 p.13) He talks about the Finnish Dream- creating equal educational opportunities for all and highlights that “education became the main vehicle of social and economic transformation in the post war period.” (Sahlberg 2011 p.15) As a result, comprehensive school or peruskoulu came into existence in the 1970s and it could perhaps be the starting point of the Finnish miracle. Teacher education reform took place in parallel during 1973-1979 and thus, “the 1970s have sometimes been described as the Golden Era of Reforms” (Simola, Kivinen, Rinne 1997 p. 879). Hannu Simola (2005, p.461) states that raising the training of primary school teachers to the master’s degree level in 1979 helped to upgrade the role of educational studies in teacher education to a great extent.

In the modern day, Finnish education is considered excellent by the international community and results from PISA studies have been a proof of the sound education system. There can be many reasons as to why the system is working so well and good teacher education is one. In fact, it is highly competitive to be a teacher in Finland and only a few candidates can join the teacher education program. According to Jukka Kangaslahti (2013 p.5), “Only 10 percent of the applicants are accepted, and they all are amongst the best of the best of the upper secondary graduates”. Teachers are respected, appreciated and have a high status in Finland. There is quality assurance in the Finnish system as Teacher training ensures that student teachers have the skills and knowledge to work in the field. Teachers have a high level of autonomy and they are involved in decision making process as well. There is no inspection system in schools as teachers are trusted to do their job well.

However, as Eleanor Roosevelt states, “With freedom comes responsibility.” Thus, it could be said that teachers need to be truly competent and be responsible in their teaching. That could perhaps be the reason why teacher training is competitive and

demands quite a lot from the student teachers. Anu Partanen (2017) mentions that student teachers need to work about 700 hours in preparing and teaching lessons in schools and they do the teaching practice under the supervision of experienced teachers (As cited in Kangaslahti 2018 p.9). This ensures student teachers to receive feedback on their performance and improve their teaching so that they can become better teachers. Simola (2005 p.459) refers to a recent survey published in Helsinki sanomat 11 February 2004 to highlight that teaching profession is number one career choice in Finland and that Finnish teachers enjoy the trust of general public, political and economic elite.

Teacher education in Finnish universities consists of a two-tier degree system. Those aspiring to become kindergarten teachers in Finland need to do a three-year bachelor's degree at the university and for classroom teachers (grades 1 to 6) and subject teachers (grades 7 to 12), it is a must to have a two-year master's degree as well. (Kansanen 2003 p.86) Moreover, "preparing teachers for a Research based professionalism has been the central mission of teacher education in Finland since the mid- 1970s" (Westbury, Hansen, Kansanen, Björkvist 2005 p.475). Teacher education curricula was "developed during 2004-2005 based on the principle of research-based education" (Jakku-Sihvonen and Niemi 2006 p.35). Indeed, professionalization of teacher education has expanded further over the years, and research is an indispensable part of the curriculum at the time of speaking.

It is also interesting to note that due to decentralization, "local school authorities, schools and teachers have been given the responsibility for the curriculum-making process" (Westbury, Hansen, Kansanen, Björkvist 2005 p.476). So, it is no longer enough for teachers to be just preparing lessons and teaching in the class. The 21st century requires teachers to be equipped with more skills. Thus, pre service teacher education should prepare future teachers to be able to deal with "curricular and decision making" processes. Without a doubt, curriculum is the heart of any academic program and teachers play a crucial role in delivering the curriculum to students.

Therefore, it is essential to prepare teachers to be competent and professional in their work. Teacher education curriculum should be up to date, effective and relevant to the context. For this reason, it is my belief that the curriculum for teacher education program in

Finland is being revised every two years in order to keep up with the new trends and changes in the society. To give a quick review of the components of the curriculum, here is a summary of the main elements of teacher education discussed by Jakku-Sihvonen and Niemi (2006):

- Academic disciplines which can be studied either as a major or minor
- Research studies including methodological studies, a BA thesis and an MA thesis
- Pedagogical studies comprising teaching practice (Obligatory)
- Communication, language and ICT studies. (Obligatory)
- A personal study plan
- Optional studies (Jakku-Sihvonen & Niemi 2006 p.35)

Moreover, it is interesting to note that every department is allowed to have its own profiled curricula while the main elements of teacher education are common. (Jakku-Sihvonen & Niemi 2006 p.35) Indeed, Finnish universities enjoy a high level of freedom be it in planning, teaching or evaluating. Although there are obligatory studies that students are required to take, there is still freedom to choose the optional studies. Most importantly, students in Finland have the opportunity to follow their passion in life and choose their career paths.

To summarize, we have seen that different curriculum development models adopt different focuses or approaches. This is because scholars are always trying to create or develop models that would most reflect the societal and cultural contexts that they are in. Indeed, curriculum developers decide their objectives and methods based on what they think is most important in the current situation. Therefore, it is our very own beliefs, values and ideas of the world that shape our actions and influence our decisions. When a belief is changed, the way we see the world and the actions we take will change. For example, earlier curriculum development models just focused on objectives and neglected the processes. However, as more people came to believe that processes are more important than outcomes, the curriculum development models started paying more attention to processes.

In the Finnish context, I have learned that equality in education is highly valued and that teachers are trusted and respected professionals. Finnish schools are performing well, and teachers are also trained well before they enter the workplace. As I became more and more curious about the Finnish miracle, I wanted to find out what is special about the teacher education program in Finland. Thus, this study will explore how the teacher education curriculum is developed and the beliefs or mindsets that underlie the curriculum development process. Since culture, society and era have the power to change the way we do things, it would be of value to know what beliefs or societal trends Finland has nowadays so that we can take appropriate actions that suit the present reality.

3. Research questions

- What kind of changes were made during the curriculum reform in 2016 and what could be the influencing factors?
- What problems or challenges exist in teacher education and what are the possible solutions?
- How is curriculum developed in teacher education program at the University of Turku?
- What kind of curriculum development model does the teacher education program employ?

4. Methods

Qualitative data was collected by interviewing seven academics from the faculty of education at Turku University. The participants were chosen based on the fact that they were involved in the curriculum planning and revising of the teacher education program. Moreover, academics from different curriculum groups were selected in order to get an overall and comprehensive idea. Therefore, the sampling method used in this research is purposive sampling. For confidentiality and ethical reasons, description of the participants' profiles will not be mentioned. Interviews were semi-structured as there were fifteen main questions but, follow up questions were asked spontaneously whenever necessary. What is more, the interviews questions were formulated based on the literature reviewed.

The interviews were recorded with the consent of the participants and then transcribed into text. The first two interviews served as pilot interviews and they are included in the data analysis as well. The interview data consists of fifty-six pages of transcripts and the method of analysis used in this study is qualitative content analysis (QCA). According to Margrit Schreier (2012 p.1), "Qualitative content analysis (QCA) is a method for describing the meaning of qualitative material in a systematic way". The main reason for choosing QCA is because of the flexibility of this methodology.

QCA allows the researcher to focus on the most important aspects that are relevant to the research questions and describe content in an organized and systematic way (Schreier, 2012). Indeed, it can be overwhelming to deal with a large amount of data and QCA helps reduce data and classify information into relevant themes or categories with the help of the coding frame. However, QCA also has its downside as it focuses only on the selected aspects of the data but not all. Therefore, it can be the case that we lose some other aspects which are worth taking into consideration. However, for reliability purposes, the whole text was coded twice with a suitable amount of time gap in between the first and second coding. In general, this research is a purely qualitative interview study which is descriptive in nature.

4.1 Data analysis

In this chapter, I will discuss how QCA is applied practically on the data. The interviews were analyzed one after another using the steps in QCA proposed by Margrit Schreier (2012). First of all, the analysis is initiated by reading the transcripts page by page and highlighting important information. Classification of data begins when codes are assigned to units of analysis. A code is a label that may consist of a word, or a phrase. A unit of analysis could be “at very many levels, for example, a word, phrase, sentence, paragraph, whole text, people and themes” (Cohen, Manion, Morrison 2011 p.565). During the first coding stage, the codes were written on the margins of the document and after analyzing a suitable amount of data, initial codes and categories were put into a matrix. This matrix serves as the coding frame and the rest of the data were analyzed based on the coding frame. In other words, codes were created and assigned to existing categories in the coding frame. However, when there are codes that don't fit into the categories, a new category was created.

The topics from the interview questions acted as guidelines in the creation of main categories. As mentioned previously, the interview questions were formulated based on the literature reviewed so they act as a kind of theoretical framework. Then, similar codes in the matrix were highlighted using the same color and grouped into meaningful clusters to form sub categories. Color coding helps to find patterns, similarities and differences among the codes. Lastly, the sub categories were placed under relevant categories which were then transformed into main themes. This final step was carried out by generating a mind map as it provides clarity and structure.

In a nutshell, data reduction was carried out by condensing the texts into codes, which were then grouped into categories and finally into meaningful themes. The criterion for categorization is to find common patterns or themes, similarities and different opinions. Coding is done in both deductive and inductive way. It is deductive because some main categories came from the literature reviewed and inductive in the sense that units of coding emerged from the interview data. Thus, it could be said that the analysis adopts an integrated approach for it “employs both inductive (ground-up) development of codes as

well as a deductive organizing framework for code types (start list)” (Bradley, Curry, Devers 2007 p.1763). All in all, the qualitative content analysis is an iterative process as codes and categories are constantly being compared and refined by going back and forth through the data (Curry 2015). Moreover, it is a reflective process of analyzing and transforming data from lower to higher levels of abstraction (Erlingsson, Brysiewicz 2017). In the following chapter, the results from qualitative content analysis will be reported.

5. Results

The qualitative data gave rise to various interesting themes in the development of teacher education curriculum. The interviews evolved mainly around these main themes: Implementational changes of the curriculum, Plausible change drivers, Problems/challenges in teacher education, Possible solutions, Curriculum development processes and Various aspects of teacher education program. Each theme will be discussed and elaborated further in terms of categories and subcategories using the excerpts from the interviews.

Theme 1. Implementational changes in the curriculum

Implementational changes that took place in the reform during 2016 can be classified into three categories; Changes in structure, Changes in content, Changes in resources. Moreover, structural changes are mentioned most by the participants and various components can be found in this category.

First of all, structural changes were made regarding the organization of the courses including when to teach which subjects, and how to deliver content, etc. The majority of academics emphasized on the ‘integration between different disciplines’, as well as the ‘collaboration between teachers.’ They mentioned that attempts have been made to link different courses and that teachers from different groups should cooperate more in teaching:

“In my opinion there was clear attempt to bridge between different areas of studies because in teacher education it easily happens that general educational studies or educational psychology studies are not very well linked with studies of subject teaching subject didactics or not with the Practical training in training school... We have also separate teachers we have educational science teachers we have teachers for different subject

didactics, and we have teachers teaching in the training school they clearly are different groups.” Interviewee 1

“Different courses should be more interlinked and create continuums like research workshops 2 in the class teacher education... This is something we tried to do with other things too and then we try to link more Theory with teaching practices meaning that Educational concepts and phenomena should be more linked with teaching practices.” Interviewee 7

Another reported change is regarding the structure of courses in the curriculum. Some contents were shifted to the ‘earlier stage’ of studies as they were considered to be more basic information:

“We have brought some, for example, special needs content and school as an organization, this society, school in the society, these sort of contextual knowledge has brought to begin in earlier stage in order that they understand how the school works, what is the role of teacher and what is the role of , how do different learners learn because we have a very strong inclusion ideology in our system and because of that the idea is to make this one red line also very visible from the first years.” Interviewee 2

One of the academics outlined a number of structural changes made to ‘smoothen’ the course performance of students. For example, electric exams were implemented to give students flexibility as the time frame is longer and they can also choose the time that they want to take the exam. There are more options to recognize previous (teaching) expertise of the student teachers when they join the class teacher education and all barriers that make it hard for students to complete their studies were pulled down.

Secondly, implementational changes were made around the contents of the curriculum, for instance, subjects that should be taught, topics that need more emphasis, updating or adding courses, etc. Emphasis on the use of ICT and multicultural education were mentioned quite often by the academics:

“We wanted to pay attention more how the use of ICT is connected to the curriculum... Then of course literature and other components were updated so that this is always important...The other big issue was the focus on Multicultural education so that now there are more elements which are related to Multicultural education.” Interviewee 1

“One overall reform practical reform has been that the digital media use are used more commonly across the curriculum in several courses and we have also perhaps more supervision and teaching of how to use this media and then what, an area which has been improved and increased is Multicultural education there should be more it isn't enough yet but we have made substantial additions to this field and also about teaching Finnish as second language I think those are the most important elements or components in our curricula they have been before already but now it's more strong”. Interviewee 6

The third category of implementational changes would be regarding resources. Here, resources include, not just materials and facilities but also ‘time’ and ‘personnel’ according to the academics:

“This year we added some electronical books not the paper books anymore so that's also one goal to go electronical.” Interviewee 3

“As future teachers they have to use the technological tools pedagogically very proficiently... There is more and more emphasis also in the curriculum to take this into account that's why we have we have modified all our seminar rooms for example to better serve this purpose.” Interviewee 4

“One change we made in the last cycle we have changed was that we had to limit the number of teaching hours, number of lessons... and we couldn't employ as many teachers as we had needed so we had to decrease number of teaching in many subjects for instance in arts and crafts.” Interviewee 6

Theme 2. Plausible change drivers

When a change is made, there is certainly an underlying reason or factors that could have influenced the change. In fact, various change drivers were mentioned by the academics and on a macro level, society is the most influential force that can cause changes in the curriculum. The category of ‘Society’ may be classified further into three levels; International, National and Local. The second category or factor that could bring about changes in the curriculum would be ‘Research’ and the third category is made up of miscellaneous or various factors.

First of all, there was a broad consensus among the academics that ‘society’ be it in Finland or globally can have an impact on the changes of the curriculum:

“What is of course more and more important is to analyze what is happening in society what is particularly important in Finland or a big change in Finland now that what is changing very rapidly is that Finland is becoming more and more kind of Multicultural Society and traditional teacher education didn't take that so well into account now it's much better already in this the new curriculum we pay much more attention to that. Then in the Finnish Society there is a huge pressure that we have to jump on the new level in our understanding of ICT and use of ICT. So basically this the globalization and particularly the increase in Multiculturalism of the country and the challenge of ICT these are the two important things which have had an influence on the changes of the curriculum”.

Interviewee 1

“Then changes in society and the society is becoming more and more diverse, intercultural so we must follow... but I'm afraid that we follow with a delay”. Interviewee 6

Internationally, organizations such as OECD (The Organization for Economic Co-operation and Development) and European Union, as well as certain trends could affect the curriculum as reported by some participants. One interviewee also mentioned that outcomes

from PISA (The Programme for International Student Assessment) study conducted by OECD as well as evaluation studies on young people's well-being are discussed seriously when there are alarming signs:

“So this pressure coming from OECD or kind of like recommendations they are more on the system level not on the level of the teaching content or teaching methods or so that they do not have so strong impact on teacher education and Finland is following some of these recommendations and is strictly against something for example this high Stake testing which has been recommended by some of international, not any longer from OECD. OECD understand very well that it is harmful in many cases to have this high-stake testing.”
Interviewee 1

“There are also interest groups in society or international trends for instance there is tendency to underline for instance entrepreneurship education and that is absolutely something that comes out of school life and that is international trend it can be European Union or OECD that requires that changes and industry and the leaders of the economy they require that you should give more basis for entrepreneurship and it is not so simple to include all this into our programs” Interviewee 6

On a national level, curriculum changes in schools could be influential factors in shaping the curriculum as stated by the majority of interviewees:

“The school curriculum directly of course influences our work because what kind of the changes in subject for example emphasis in subjects etc. what new trends and what new kind of teaching forms of teaching etc. are coming up so we have to react to that so that they are really prepared to the school (work)”. Interviewee 4

Moreover, Ministry of education and The National board of education were considered to be important change drivers by a few interviewees:

“Of course Ministry of Education has a rather heavy impact on what we do because they have always we have the national curriculum and it is very carefully usually kind of drafted because there are several work forces and also people from the Departments of teacher Education are involved... so it kind of gives the general guidelines how to then formulate the curriculum in schools.” Interviewee 4

“Of course we read and we follow we are involved in national board of education discussions as well and curriculum development there and so we have close contacts to schools and school administration and the Ministry of Education of course has some recommendations.” Interviewee 6

Additionally, some of the academics mentioned that there can be political influences on the curriculum changes in the teacher education program:

“Always curriculums are political issues and there are political decisions behind those and if we only take into account those we perhaps we don't think us as educators or as experts but we just take it and perhaps practise it so I think that we have to also be critical... we should be pushing the development further than just following the instructions.” Interviewee 3

“Because of the politics of the government are so basically we are doing a lot of more things in less time then ever and that that is the most important issue at the moment I think.” Interviewee 5

One participant also indicated that legislations play a part in the curriculum development. For example, legislations which instruct the amount of credits that should be used for practice, subject matter studies, research skills, etc.

On a local level, there are many actors who are involved in the curriculum development process and they are capable of bringing about new changes. According to the academics, these actors may include students, teachers or staff members at the university and they are mentioned a lot in the interviews when asked about the factors that influence the changes:

“The student’s feedback, that's one very important part. Of course, also teachers because they are, most of the teachers are doing also research at the same time. They develop themselves they learn to see curriculum differently after increasing experience and when they have repeating certain courses a couple of times they have noticed that maybe we can make it better so that, also teachers own experience is something.” Interviewee 1

“Our staff, we have our competencies and we must also be able to follow the changes and renew our teaching... I think that our teachers our Professors they follow research abroad and they follow the school developments I think the needs arise with our teachers mainly.” Interviewee 6

A small number of participants stated that also the university gives certain recommendations and general framework and that can influence the curriculum changes of the teacher education program:

“It (the curriculum development process) starts with some recommendations of the whole university and also on the university level they think what kind of aspects and elements has

to be taken into account in curriculum and for example now there is a kind of general attempt that the learning aims should be defined in a more precise way.” Interviewee 1

“The faculty board will give general framework & guidelines for us and we fit whatever we do within that guideline if the faculty board says that okay next year there will be like 8 hours teaching per 1 ECTS Credit that's kind of a framework and then we try to fit whatever we do within that frame.” Interviewee 7

One of the interviewees also suggested that informal feedback from contact schools where the graduates are working, can influence changes in the teacher education curriculum. For instance, ‘discussion with parents’ is now more emphasized in teaching as a result of the feedback from schools and also graduates.

The second category or factor that can create changes in the curriculum is ‘Research’ be it from Finland or abroad as pointed out by some of the interviewees:

“We teachers are also researchers for example from our research or for other research in our department or in Finland or in International level we get some feedback and then we were 'oh we don't find this Concept in our curriculum. We need to add it here it could be also like this.” Interviewee 3

“We must remember that there are developments also in the educational science and research and we must follow that line also and because it is research-based teacher education”. Interviewee 6

The third category consists of different factors that could affect changes in the curriculum for example, 'certain type of beliefs or ideologies and changes in culture' according to some interviewees:

“Some kind of belief in computer science technology that they are thinking that you can teach everything from there/that which is not true.” Interviewee 5

“We think that we need to change, shift from the fragmented world into a more holistic one because it's a profession they need to create some kind of view or idea holistic idea what am I going to do. Not just separate courses I've done this but I don't know anything about you know what's life is about in this profession”. Interviewee 7

Theme 3. Problems/ challenges in teacher education

There are quite many challenges in the curriculum of the teacher education program. Here, 'problems' or 'challenges' mean any difficulties and obstacles that come up in the teacher education curriculum or the society. Thus, these two terms will be used interchangeably. These various challenges can be classified into four main categories: Structure and organization, Resources, Societal topics, and Miscellaneous.

First of all, challenges regarding the structure and organization of the teacher education program were mentioned most by the participants. Structural problems may be further broken down into three sub categories: Collaboration between different bodies, Integration of courses and Organization of content.

Collaboration between different bodies were highlighted by the majority of participants for example, partnership between school and parents, collaboration between teachers, coordination between Turku and Rauma and logistics with the training school:

"I think like many societies we face the problem that the partnership between schools and parents has to be and that's a challenge that has to be changed. The role of parents has to be clear but I'm worried about that the teacher profession is changing to more like a social worker or psychologist. The teachers are overloaded with very many problems which come from home and we should sort of build up a partnership which is the role of parents and (more)of school and so on that we support the child in the same direction... We are also now developing sort of the Cooperation more systemic with Rauma unit because we have two units, Turku and Rauma. And that is of course a huge challenge". Interviewee 2

"Perhaps we have also this problem that that because this is a large Department we don't always know what other teachers are teaching we we can read this curriculum but this

really doesn't say everything about the course there could be some for example some methods we are using also there could be also some Concepts we are teaching and they are teaching also and it would be really good to know that if you are teaching about that concept that viewpoint I can add to that and not to say all the viewpoints like the first time so I think this coordination and cooperation between teachers is one of the issues that we have to also develop further.” Interviewee 3

Integration of different disciplines or courses were also mentioned by some of the interviewees when asked about the challenges. They stated that the courses are somewhat ‘fragmented’, and that it is challenging to make them ‘coherent’:

“The existing curriculum is functioning rather well so that there are no serious problems but based on the background the feedback from the students there are problems for example in the integration of different courses... from students point of view different courses were kind of too separate probably they feel the same also about the new curriculum we didn't manage to do enough for that.” Interviewee 1

“We have to support this critical attitude on research-based thinking during these five years and it's a tough thing because we are we have this educational science as major and we have the subject studies and then we have our normaalikoulu training school and they are sort of in three different units and that's of course the integration is a challenge.” Interviewee 2

Another structural problem that was mentioned by a few participants had to do with the organization of content. They stated that ‘basic concepts and phenomenon’ came too late in the studies:

“I think that was the structure and sort of that our structure was not so, so much in line with the needs of the students which kind of knowledge and competences they should already need during the first practice like this special needs issue. It's come from the feedback that they don't, that's in our last curriculum it came too late, that was the problem. Because of that we put it in the already in the beginning.” Interviewee 2

The second most mentioned challenges would be concerning ‘Resources’. The concept of ‘resource’ is vast as it involves time, finance, personnel and facilities such as training support. A large number of those interviewed stated the problems regarding timing and workload of the teacher education curriculum. They mentioned that it is rather difficult to balance the contact hours and workload:

“There was some timing problems so that some of the terms were very busy and some other terms not so busy and now we try to balance that better so that the workload should be more or less equal throughout the whole program and but that's also something which we do not know exactly in advance how heavy is this actual work load”. Interviewee 1

“I think one of the big problem is resources and for example both from the students point of view and also from the teachers point of view so we still have little bit too much contact hours because the more you have contact hours the more heavier the load... and there is not much time for independent work for example so this is some challenge we also try to tackle all the time that how much contact hours there should be one credit point and... also thinking the students resources and the teachers resources it's only 24 hours a day and you have to rest and sleep a little bit eat and have also see your friends etc... so this kind of the balance is still a challenge in teacher education.” Interviewee 4

Interestingly, although there were a few interviewees who stated that the contact hours are a bit too much in the curriculum, one participant had an opposing viewpoint:

“We had to cut the hours down... that's been happening for the last 15 years a bit and by bit and bit...now we have come to the level that cannot be anymore reduced without really I have to say I have to change the career after that because I can't teach such small number of lessons anymore so that's the main issue.” Interviewee 5

Some of the participants also highlighted other challenges regarding resources for example, staffs and finance. They mentioned that resources were cut down and financial support for the education field has been lessening:

“It's kind of sad that in 19th century Finland was very poor that time they understood the role of Art and culture and education and those things and that was the basis that we are here where we are and now when we have everything we don't believe anymore of these things.” Interviewee 5

“Our resources, to finance the whole system is diminishing all the time for the basic education for the secondary education and so forth and also for educating our teachers well so the resources are diminishing everywhere that means that we need to do something and on the contrary if our resources to maintain the level and quality of our education is diminishing at the same time our demands are just growing so it's like being in a very tight situation. I think we are living a time or a time era at the moment that everything needs to be high flying or high-level things you know everything needs to be (flared heel) and then well at the same time the basic cornerstones that really carry the educational field here in Finland it's going to be disintegrated so everything that you can make good headlines out of these are going to be financed & heavily financed.” Interviewee 7

A small number of those interviewed suggested that there should be further education programs for teachers and that pedagogical training for subject teachers should be expanded and more intensified to meet ‘the needs of secondary school student's challenges’:

“Teachers have to be further educated we have to do a lot systematic further education programs also in subjects studies not only in educational sciences and they should have sort of like doctor, Medical doctors have one week approximately one week per year time to spend in conferences, in learning something new and that should be I think also the same system ... Because that’s one of the main professions in our society that we have such a wonderful miracle developed, this miracle, our system and that should be supported further... We need resources... Teachers need support, a lot of support in every day classroom.” Interviewee 2

The third category of challenges evolves around different topics or trends in the society such as multicultural education, ICT, well-being and motivation of young people as well as problems faced by schools.

The majority of participants mentioned that multicultural issues are challenging as there are more and more multicultural students with different backgrounds in Finland and so the society as well as schools would need to adapt to that:

“We have to find good ways to integrate our migrant students so that they also are doing well in school and get integrated in the society can have good opportunity to study and go on to upper secondary school education and to higher education that is very important we haven't paid much attention to it because it has been quite homogeneous.” Interviewee 6

Another challenge that Finland is facing would be regarding ICT and digitalization in education. The participants stated there is a need to make immense advancements in the field of ICT and that some teachers face challenges in using digital tools:

“There was interesting development at the end of 1990s Finland was very very advanced country in the use of ICT when we compared the society in general and also our schools for example with other European countries or also more globally but then during last let's say 10, 12, 13 years there has not been so much development but other countries have had huge developments and now it's well known in the society ok we have to do something it's not enough anymore to make some minor changes we have to make similar jump on the new level what we made in the 1990s and of course there are many things we have to do in our educational system and these changes in teacher education is one part of that, very important part... pre-service training and there are simultaneously going on massive in-service training for teachers who already are teaching in schools.” Interviewee 1

"The software and the tools are not easy they are not working well I mean the teachers have huge problems because of this software and not working tools they are competent but tools are not working well and that has to be changed a lot I mean digitalization has been discussed a lot in our system I think that's not the problem the problem is that it should be the educational digitalization should be developed , not technology-driven, it should be sort of teacher should be heard and interviewed what kind of needs do they have and not sort of bring those computers and then start to work, that doesn't work... They need technical support and sort of people who discuss with them the educational solutions using digital tools.” Interviewee 2

A few interviewees also mentioned challenges regarding motivation and well-being of young people in Finland. Some research studies are showing ‘alarming’ trends that young children and young adults are not feeling so well and there are more worries concerning boys:

“One trend is that how to really keep young people motivated to study and the problem is first I think most alarming with boys so there are trends that show that girls still do it also the PISA outcome shows the same that yes girls do it but boys have more difficulties...and this means that there have been analysis concerning also the Finnish school that it is somehow favoring girls culture and girls interest etc. and not so much boys...and it is a challenge for the society to think about to make the school more also attractive and interesting for the boys and to support them in if they have difficulties...Well-being of the young people so this is certainly a challenge because...if you are starting to feel bad whatever the reason is depressed or isolated or whatever so it predicts very strongly what happens later on.” Interviewee 4

“In Education yes one major problem or worry has been that the PISA results are not so good as they used to be I think that PISA is not so important but what it is telling about the system I think that perhaps they are not learning so well anymore and the motivation is not so high for studies and it tells perhaps more about that some of our young people are not feeling so well if they are not motivated for learning so perhaps it tells also about some problems in the Society I think that people are more worried about boys than girls the boys results have been sinking.” Interviewee 6

Moreover, one participant pointed out that there are some signs of growing segregation in Finnish schools as some are doing better than others while some are going down. Also economy is a problem for schools so classrooms end up having big teaching groups.

The fourth sub category of challenges is made up of miscellaneous issues such as ‘conflict between traditional schooling and modern living’, ‘clashing viewpoints towards the Finnish school system’ and ‘difficulties in dealing with cross disciplinary topics’:

“I think this, kind of biggest challenge is the, kind of modern living style which is, it is in fact in conflict with serious studies and traditional schooling and when I refer to modern living style I refer to the use of this kind of social media, TV entertainment, this kind of cultural features which do not support so much kind of deep long standing concentration to some difficult task but people tends to expect kind of easy and immediate results and that's not what schools are about. Schools are for teaching something which children do not learn in the everyday context and mainly knowledge which is more complex, it takes time, it requires more practice and more high level practice and I guess this conflict has been always but it's becoming more and more difficult and and then depends a little bit on the Society, how strong this conflict is but I would say that in Western European and North American countries this is particularly big problem at the moment.” Interviewee 1

“Perhaps what I personally find quite interesting is that we still have some kind of PISA success also and still the conversation in Finland goes that Everything is rotten in our school system and we have to change it totally and this is quite interesting because internationally I think people think that system in Finland is quite good perhaps there are some minor changes to be done but it's mainly good... I think that individual teachers have to be critical and think about their teaching and to improve it.” Interviewee 3

“Cross disciplinary topics or themes they are important in the training school curricula and we must have something that prepares the teachers to work in that area /field... it has been in the school curriculum for ages, but teachers haven't learned to do it... But I think that it is easier for primary teachers who have their classes almost all the time... its more difficult for subject teachers.” Interviewee 6

Theme 4. Possible solutions

Though there are various problems or challenges in teacher education and the society, the interviewees gave a good number of solutions and strategies to tackle these challenges. The possible solutions are distinguished into four categories: Solutions for ‘Societal topics’ ‘Integration and collaboration’, ‘Balancing workload’, ‘Miscellaneous’.

Firstly, the majority of participants suggested several solutions to deal with different topics or trends in the society. One participant mentioned that further education for different themes like digital learning or multicultural education is now available. The following extracts represent some solutions for the challenges in ICT and how to apply it better:

“It's a big challenge for developing new methods for teaching which somehow can combine, for example the flexible use of new technologies but on the same time ,concentration of this demanding learning of deep understanding so that, this is a big challenge, we are working on that , for example in my own research project we are dealing exactly with that problem and we try to develop new , understand better what are the challenges of learning and then how we can do teaching better.” Interviewee 1

“We have people who are more or less specialized in this field so we can use their Knowledge and Skills and then improve the infrastructure too and this is we are still in the future investing in digital infrastructure.” Interviewee 4

Regarding multicultural issues, many solutions were provided by the participants. For example, there are projects that will focus on multicultural education and the website of the national board of education also offers support on language teaching and integration. Also, they stated different ways of improving the multicultural aspects in teacher education and helping multicultural students in schools:

“We have to take emphasis these Multicultural issues that there is also research-based ideas not only ideology sometimes the ideas concerning Multicultural studies and so on is very ideological and we need really research based models also how to integrate and Turun normaalkoulu has been very good in trying different models and they are doing good work in this Multicultural issue in Varissuo. They support us very well.” Interviewee 2

“When an asylum seeker's child with no Finnish come to Finland and if they are like 8 or 9 year old they, the city of Turku and other cities they provide them for a year before they go to the normal school just to learn the Finnish how to cope and do those things that usually happen at the school so they are more ready to start with in their ordinary classes afterwards... at the moment we are trying to educate the teachers for that kind of purpose also so usually there are class teachers or special education teachers who have got this special training above on top of their diploma in order to go on with this kind of teaching.” Interviewee 7

To improve the well-being of students in schools, one participant suggested that professionals from different fields must collaborate more in schools:

“Multi-professional work in schools must be strengthened so that teachers psychologist curators whoever parents work more and more together so this will be a challenge and of course this is something we have to prepare our teachers students to face in the school...

the teachers as well as others in school they have to work together and find new Solutions ... to avoid kind of prevent this kind of negative cycles with the children”. Interviewee 4

In order to deal with the problems related to integration and collaboration, the interviewees proposed intensifying cooperation between different units such as educational science, subject didactics and teaching practice as well as between Turku and Rauma. One interviewee also stated that ‘new models for parental conferences’ have been employed in a research project as building effective partnership with parents is very important:

“To add some cooperation for example we have now teacher tutoring system in our department and there is also teachers from the educational sciences and teachers from this subject for example math and handicraft and PE and all the subjects also so there we can also meet and we can discuss also about teaching in different courses and that's that is one way to add this cooperation and when we know what we do then we also we can further develop our courses... we are also developing this kind of idea that we would have this meetings about perhaps two times a year with Turun normaalikoulu also that we could discuss about some themes we are researching and teaching and get some cooperation for that also but that's only a plan so I hope it will it will succeed.” Interviewee 3

“What we are doing is kind of tightening the collaboration between two units Turku and Rauma ...to bring them really close so that we have synergy benefits because there are people who have certain kind of expertise here and people who have certain kind of expertise so it is so much better if you can kind of join the forces of the two units... it demands a lot of work to make it function also because there is approximately 80, 90 kilometers distance here and but again we have to use the technology more cleverly than we have done previously.” Interviewee 4

To solve the problems concerning timing and workload, some solutions were presented by the participants such as shifting content from one term to another, adjusting the contact hours and making better use of technology. One interviewee mentioned that tutoring of students can also help those who have problems in fulfilling the curriculum:

“Something which has previously been taught during some term is now moved to another other term and this kind of changes which balance a little bit the workload.” Interviewee 1

“We have reduced the contact hours a little bit last round during the last round and... during the forthcoming round so that there will be a task force that really thinks kind of the new forms of studying new forms of teaching new forms of learning by using more cleverly I would say technology so this could also solve some of the problems that are linked to this contact hours for students and teachers and make it, eh studying more flexible and also that you can study even more in during the summer time etc.” Interviewee 4

The last category of solutions is made up of miscellaneous subjects mentioned by different participants. For example, a few interviewees stated that teachers ‘design’ solutions together with their partners and students:

“Teachers perhaps try to find methods for getting students motivated and helping them to learn effectively I think that is the way and then we have of course this special education course and special education teacher programs in this faculty so I think in that way mainly ... perhaps the teachers should be very conscious about the developments in society and kind of social political democratic consciousness so that they try to overcome problems together with their students” Interviewee 6

“The teachers design their own solutions because in Finland teachers are trusted and they've got the pedagogical freedom and of course they design their own Solutions in cooperation with their partners and collaborative teachers... I think we still use some common sense, we still believe in the basic ideas that maintain the backbone of Education. We try to do adjustments we try to do rethinking and we try to do a lot of cooperational work among the Professionals of the educational field and then of course we try to do cooperation with the national board of education... and if there is challenge we can always consult and think it over if we can help or solve the problems together.” Interviewee 7

In order to address the challenges regarding cooperative teaching, one of the interviewees stated as follows:

“In class teacher program we have had some optional components in the monialaisetopinnot what is it called curriculum studies for school subjects they have been there we have had some smaller courses...which are cross-disciplinary but it is not very much and in subject teacher education we have one specific course where we have selective optional topics where we have cooperative teaching and these common themes.” Interviewee 6

Interestingly, one participant claimed that understanding the ‘complexity’ of the problem is the key to solving it:

“We understood that...if we take, put time and effort to understand the real problem, solutions are really easy in the end and quick but you know if you have 1 hour and you divide it if you take 55 minutes to understand what is there going to be what needs to be changed and understand the whole problem or the complexity of the problem it takes only 5 minutes to solve it.” Interviewee 7

Theme 5. Curriculum development processes

Curriculum development processes would be the heart of this thesis and I will be discussing these categories: When and how often the curriculum is updated, The curriculum development procedures, Aims of the reforms, Development of content and methods, Evaluation and Important focuses while developing the teacher education curriculum.

Firstly, when asked about how often the curriculum is revised and when the teachers feel the need to make changes, all the participants mentioned that the curriculum of the teacher education program has to be developed every two years and so the reforms happen in cycles. Also, some of the interviewees stated that it is an ongoing process as minor changes are done all the way:

“The system in our university is every two years every faculty every department has to change but of course we don’t need to change everything we just need to change what is important but this work is sort of supported from our University, Central University... (Also) We are able to change during this normal period a lot...you're free to make adaptations.” Interviewee 2

However, it was interesting to note that one of the interviewees expressed a bit of struggle in keeping up with the curriculum changes:

“We have to do it every after 2 years yeah the former one was 3 years but that was exception so basically we're doing the work all the time sometimes you have to ask okay I haven't had the opportunity to teach this course yet and now I have to discuss about changing it. How do I do it” Interviewee 5

The curriculum development procedures are complex and there are many steps in revising and changing the curriculum. Firstly, some interviewees stated that the process begins with general framework or guidelines by the faculty that determines ‘learning aims, maximum contact hours per credit point’ etc. and teachers try to fit whatever they do within that frame. Another example of the general guidelines was to strengthen the collaboration between Rauma and Turku. Thus, it can be seen that these guidelines are well taken into account when planning the curriculum:

“It starts with some recommendations of the whole university and also on the university level they think what kind of aspects and elements has to be taken into account in curriculum and for example now there is a kind of general attempt that the learning aims should be defined in a more precise way. For Teacher education curriculum it's nothing new because we have been doing that already a couple of decades so that this was a big part of our own kind of content knowledge how you have to design curriculum curricula and how to define the aims for curricula so that teachers who are teaching the courses really know what they have to teach and also the students who participate the course know what is expected.” Interviewee 1

Various actors are involved in developing the curriculum and there is a broad consensus among the interviewees in saying that not only teachers and those in managerial position but also students play an active role in the curriculum development process. Curriculum development task forces or planning groups are nominated by the dean and these groups may consist of professors, middle level staffs and student representatives who have their voice in the planning. Moreover, the way each task force work can be a little bit different depending on the chair:

“We really try to get all the teachers involved so that they are actively involved in the curriculum process and the hope is of course that...they feel a kind of... that kind of agency

so that they own this curriculum. This is their own curriculum so that because they have been involved in doing that and... same for students but not all students involved but from the Student Union it is a kind of organization of Teacher education students they have nominated members in the Planning Group so that... students were also involved but this is something I think is fundamental feature of this curriculum process.” Interviewee 1

“All subject groups for instance music teachers arts teachers together science teachers the group of educational science teachers they should together reflect on the necessary changes that have to be done and then we have formal organization... Preparatory group that prepares the curricula...The Department has one group that is doing curriculum for primary teacher education in Turku and in Rauma and handicraft teacher education and kindergarten teacher education then we have other group that is planning for this subject teacher studies and then Department of Education has its own groups that makes the curricula for their various programs.” Interviewee 6

After forming the curriculum development task forces, they start thinking of what kind of changes should be made by analyzing the situation and trends in the society. Curriculum changes and changes in research are also considered during the planning stage. What’s more, feedback from teachers and students are taken into account while planning and so it could be said that ‘Situation analysis’ is a vital stage in developing the curriculum:

“These work groups ... they start first kind of analyzing the current situation and the trends in the society, in schools... and also globally and consult for example the newest methods or whatever is needed to think, thinking of the core areas, core concepts so they start in this way so they don't immediately start to write the new curriculum but they first have meetings where they really think...what is really needed what kind of changes are needed now and then of course they have to be realistic what can be done during this round

because you can't you can't do everything what you would like to do but it has to go gradually.” Interviewee 4

When the curriculum development task forces have done the situation analysis and discussed the necessary changes to implement in the curriculum, they draft proposals which goes finally to the Faculty board. In the proposals, reasons are also given for why something needs to be changed. Although the Faculty board is the decision organ for implementations, these task forces have the ability to bring about changes as they are trusted experts. Thus, it can be considered that the curriculum development process adopts a bottom-up approach:

“These Preparatory working groups they are working very intensively the second year (all) the curricula that means for instance next year and then they have finished their proposals for curriculum. they collect of course every teacher who is responsible for some course must suggest the changes and bring his or her suggestion to the this group and this group discusses and finalizes it and then head of the department must see if the department has resources for doing this kind of , then the head of the department must count how much teaching can we include... do we have enough persons do we have enough money to go through this curriculum and but normally the group knows they're doing the proposal in accordance with the resources and then when the head of the department shows green light then this document goes to the faculty board and the faculty board is then there is situation that accepts ,rectifies the curricula that is the process we have” Interviewee 6

Moreover, the majority of participants pointed out that the curriculum development process of the teacher education requires a lot of time and is quite complex. However, one interviewee added that this long curriculum development process is ‘the key of the success of the teacher profession’:

“For example when there is these are about scientific methods courses we do it always together there are several teachers it's not two or three but it could be all the teachers in educational sciences who meet and then we discuss it and the process goes on so it's really complex for because I have so many courses and so many groups to work so it takes time it's really interesting but it's a lot of meetings and a lot of reading and thinking and Googling and it takes time.” Interviewee 3

“It's very stressing for people if they have to do it within half a year because if...we want to make some big changes it takes time to discuss with people to negotiate to really think through that is this wise is this worthwhile and how we do it we also have to take into account that some students have been studying with the old curriculum and if we change it radically it means also that we have to take into account that how we adapt this to the students who have already begun so it's a little bit complicated again ... it is a long process but it also means that we take it very seriously because it's the I think the core of the thing what we are doing at the faculty and in the department and it is also the key of the success of the teacher profession in Finland” Interviewee 4

There is also wide agreement that feedback from students and teachers is taken into consideration when the task forces are planning the curriculum. One interviewee claimed that students should evaluate teaching and that teachers also observe what is functioning well and what is not:

“They also use the feedback from the students and also feedback from the teachers so it's not only the members of these task forces but they have to also discuss in their for example within their discipline groups so that they have kind of they are representing their groups in these meetings and then they start to get to be ready have some kind of the common understanding what are the for example major changes that has to be done then they start

the actual work I mean looking at the curriculum how (it) and where it has to be changed.”
Interviewee 4

A few interviewees also pointed out that minor changes can also be done with the approval of the vice dean:

“Well if we have to make bigger changes it must go through The Faculty board and this Preparatory group but... if there are small changes for instance some textbook is too old and there is a new one such changes can be done on the basis of the vice dean decision”
Interviewee 6

Some of those interviewed indicated the ‘aims of the curriculum reforms’ and one of them is to create more coherence between courses or disciplines. Also, one interviewee stated that teacher training has to be coherent with challenges that come from outside university so that student teachers will be able to adapt to the new curriculum in schools:

“This was clearly one of the aims in this curriculum reform to find methods which could bring the difference fields of teaching more together and integrate them because we have also separate teachers... and now of course it always have been our aim that they should collaborate but now this time we try to pay much more emphasis on that also in the structure of the curriculum there were more of this of elements... so that students would see more kind of coherent content... I think that now after these changes our curriculum is better taking into account what is happening in the society outside the university.”
Interviewee 1

“We want our students to create a bit more holistic view of what is going on not just separate courses I've done this course and this course but they should... create a continuum and then when they create a continuum that means that they are more interlinked the theory or concepts should be addressed into the other course to see the different point of view from the idea and then to have a more holistic view...so our view point was to create something more comprehended entities” Interviewee 7

Another aim of the curriculum reforms was to support students in learning which include research and reflective skills. Also, teacher education must prepare them to be ‘good professionals’ so that they will be able to handle challenges in schools:

“We have to support their learning to learn skills because we have to be Experts for Thirty Years and even longer that they are able to develop their competence and expertise on their own in their life, in their working life when they have graduated and these skills are very important”. Interviewee 2

“One of the guidelines to our curriculum thinking even more so today so we want to train teachers who really you know can also later on benefit from...the newest knowledge we have on the basis of research so they're capable of following how the field is developing and kind of keeping up their professional Knowledge and Skills so this is why we integrated methodological studies so heavily in the curriculum and this is only kind of strengthening all the time” Interviewee 4

As for the ‘development of content and methods’, some of the participants mentioned that the main emphasis is on the content, for example ‘adding and subtracting elements’ and that the teaching methods are defined on a ‘general level.’ One participant

also pointed out that the development of both content and teaching methods should be research based:

“Most of the this curriculum process links with the content that is our main emphasis because normally the individual teacher decides about the teaching methods he or she is using so we don't have so many texts about these teaching methods in our curriculum but perhaps that was also one issue we were talking about that perhaps in the next curriculum we should also have texts about this that in this course this and this method is used but personally I like this one because you can change the method even when the same curriculum is in this particular course so that's why I really like it that you don't have to decide it two years before that I'm using this method in this course” Interviewee 3

What's more, majority of participants stated that they have 'autonomy' in developing the teaching methods and choosing content:

“The content and teaching methods development is in the hands of the teacher no one addresses or forces you to change your way of doing it because you are the professional...if you hold the position so you decide...and if there is a person who doesn't want to change anything that's fine usually they get a lot of feedback from the students and from that point of view they need to change and of course we develop the content in cooperation with other professionals in the department that's the way it goes” Interviewee 7

'Evaluation' is an important part of the curriculum development process and the feedback from students and teachers can have an impact on the curriculum changes according to most interviewees. Collaboration and discussion with students are seen to be important in the curriculum planning:

“I have to say that, a lot because...take an example we have for class teacher education we have four different teaching practices during 5 years of their study and each teaching practice is being revised and we get feedback a lot I mean in a written form on very many different aspects and the data is being collected and then I call in the board like people from the Department people from the teaching practice School and then students so we together we start reading what has been said about these things and then we listen very carefully about the young people ideas what is going to be needed to change in order this to be a better course or better teaching practice and then we change make the changes and tell everybody that according to our feedback we need to change this then we try to implement it and within a year we get a new feedback to see did we do any better so it's like a, it's like a feedback cycle” Interviewee 7

However, some participants thought that the influence of the student feedback can also depend on the consensus among students or the nature of the problem that is stated:

“It is easier to make changes if the student feedback is there is more opinions than only one opinion if and if it's very common and if there is consensus in students' feedback but if there are mixed messages then you don't know what to do”. Interviewee 6

“It is very easy to change for instance technical questions, mistakes or balance courses or things like that.. timing or books I think it is but if students feedback is that this and that Professor is not teaching very effectively it is very difficult to change that was just a fictional example it is not so easy to change things that are related to the teachers personal ways of teaching because it is sensitive.” Interviewee 6

Furthermore, a few participants stated that the system for collecting student feedback needs to be more effective in the future:

“Now in our department we started to have this piloting of student feedback about the courses and this is something that is done in the University of Turku level...during the next half year I think...we will get some feedback for all of the courses after this piloting and we will have this kind of group where those feedbacks are discussed and also with other personnel we will discuss about those and there will be also some student members involved in this process and I hope in the future we will really have a big a quite good system for this feedback that the system is gathered from all of the courses and really it affects/impacts for the developing of those courses.” Interviewee 3

As teacher education is a type of vocational training, the student teachers need to be well trained before they enter their workplace. The curriculum prepares students for practical experience and the feedback from schools where they have teaching practice is important. There are various ways of getting information from schools where student teachers do their practicum and it was pointed out that the feedback from schools is mostly informal and that it should be more systematic:

“This is mostly informal but then... we get, and this is organized on the University level that when our graduates has been working some time , then we ask their experiences that how the University studies have helped them to work in the profession and then so on and this is of course important feedback what we get but this doesn't happen every year so that...not all the graduation generations answer that but so let's say every third fourth year this kind of feedback is collected from all the graduates” Interviewee 1

“Mostly they take their training in normaalikoulu but then we have a colleague who is sort of supervising the trainings and he or she is collecting data but that should be more systematic how we get feedback from the outside university schools...that's not so effective that should be developed but also all the practices are also sort of using some student feedback” Interviewee 2

However, it seems that the feedback system from the training school in Varissuo is more 'solid' compared to other schools and that it can have an influence on changing the curriculum:

“Most of our students go to the training school to Norssi and they have for years already have a very solid feedback system so it is you know the electronic systems and every trainee have to answer to the feedback questions and they are used they are really used yeh it's very important and all this kind of those (of) the training practices supervision of the students its influenced by this feedback so it's taken very seriously and every teacher gets the feedback concerning him or her also at the department” Interviewee 4

There are many things that curriculum planners have to pay attention to when developing the curriculum. These 'Important focuses' can be categorized into four categories: Situations and curriculum changes in schools, Students' study process, Teacher's competence and Various factors.

According to some of the interviewees, it is important to look at the school situations and deal with the concepts or phenomenon that are focal in the core curricula when developing the teacher education program:

“Of course there are some, main things we have to pay attention to. One is what, our ideas of the demands of teacher profession. What do teachers need today and particularly in future and this is the most difficult part because it's very difficult for us to think the future education without thinking the current school situations so that basically it means that we try to look carefully what kind of, what are the most advanced models which take place in schools and then based on this most advanced models we can anticipate that what kind of development will happen during next years or next decade in education and then we try to take that into account in planning the curriculum” Interviewee 1

“It is very important that we make such changes that that are relevant for the school and are in line with the curriculum we must pay attention to the changes in schools... and yes so that I think that most of this changes in content they were very relevant topical... and there are some topics which are very important the newest core curricula (is) emphasized by the students participation in school life Democratic education multiple literacies and cultural awareness language awareness and they are topics that must be dealt with in our teacher education program as well” Interviewee 6

Secondly, the majority of participants stated that curriculum planners should think about students’ study process for example, if something is doable or too difficult for students in order to maintain a suitable level of studies. Also, scheduling is an important factor to achieve a balanced curriculum:

“We of course have to think curriculum from the point of view students study process, so that we have the guarantee that they remain motivated, everything what we put in the curriculum is doable, so that we can guarantee that most of them can finalize their bachelor degree in 3 years and then the master degree in 2 years... and that’s very important” Interviewee 1

“In general, we need to combine theory with practice and the chain of courses should have something to link them together... We are aiming to you know it's like a if you complete a puzzle every piece is a pause but we need to show the students the links to these puzzles in order to make the whole picture which is the diploma, the graduation.” Interviewee 7

Some of the academics also mentioned that teachers’ expertise is an important focus when developing the curriculum:

“The most important is the teacher’s expertise. What are the challenges in her or his expertise in future, how should we give this learning to learn skills and most critical expertise that they are able to work Thirty Years.” Interviewee 2

The interviewees also stated other factors that they focus on when developing the curriculum:

“We also look what other universities are doing, if they have good ideas so that we are discussing (our) best practices, these are elements we try to take into account.” Interviewee 1

“It depends again what we think but one thing is the fairness so that kind of the division of labor between the faculty members is has kind of equal as possible of course your teaching hours are dependent on what kind of position you have mostly.” Interviewee 4

“These trends of course and the needs and we have to check the course and the contents that it is up to date and then we have to develop teaching forms... and we check that teaching time matches with the credit numbers” Interviewee 6

Theme 6. Various aspects of teacher education program

In this theme, I will be presenting the Functioning elements in the teacher education program, Improvements that should be made and Students teachers' performance in working life. To begin with, all the participants agreed that they are satisfied with the basic structure of the curriculum when asked about the things they have decided not to change:

“I'd say that the main structure of the studies remains the same and also the course codes. So we changed contents and some ects credits were transformed and emphasized there a bit more and a bit less in here but the total amount remains the same.” Interviewee 7

Another thing that was kept in the curriculum would be the model for methodological studies as mentioned by some interviewees:

“We have been very successful in doing some things which might have problems more problems in other teacher education departments for example how we can how we have integrated research method studies and this kind of research-based studies with other parts of the curriculum we have this model of kind of research Workshop which is longitudinal study program and it starts during the first semester and goes basically throughout the whole curriculum” Interviewee 1

“The unique thing is that we start already the research skills in the first year they do some empirical work in the normaalikoulu and the training school. They collect data, they analyze it and we try to make the first methods are interview and observations sort of relevant for teacher professions that we want to support this conceptual change... This

model has been shown already very long time in our program but and that has been sort of stable part”. Interviewee 2

A few participants also stated that basic studies of education have not been changed so much:

“Perhaps the basic studies of Education which is they're pretty much same for students at the Department of Education or the subject teachers or the Masters we are training here so we won't probably change much there only some contents of course making them more fit to the current situation and also so that they serve the further studies better than before.” Interviewee 4

As various challenges and solutions have already been discussed before, only a few ‘improvements’ that should be made in the teacher education will be mentioned in this category. One participant stated that theoretical education for multicultural issues should be added to the curriculum. Others mentioned that critical awareness and cross-disciplinary working should be strengthened:

“I think that one very important issue is that they have to be critical, they have to have critical awareness concerning knowledge...they should have some research based ideas how they develop their teaching , they should make use of newest research teaching relevant research which they could use and apply some new methods and so on and so on. That is extremely important and there we have of course lot to do still I mean. Yeah but that's never ending story.” Interviewee 2

“Basically the new curricular are still subject-based so the subjects are not they haven't disappeared yes but maybe our subject teacher program is too much based on subject (divisions) so we should add this cross-disciplinary working... I think that there are very many strengths in our system and our profile that is based on the Research we have here, this, research on learning and teaching and it gives flavor to our teacher education but perhaps we should have more more space for philosophy of education and also deal more about society education and society together so I think that is the weakness in our system we should have perhaps more about human rights education and Democratic education things like that.” Interviewee 6

Last but not least, the participants stated that student teachers' performance at schools was satisfying when asked if they were meeting the expectations of the schools, they were working in. Most students receive good feedback as they are really motivated and put a lot of effort in planning lessons:

“Yes yes because they are hired. I think that's the most important thing that almost over 90% get their first position immediately. Yeh. for example now in my research I meet my own students and I'm very happy to see how good they are but we have to collect systematic data.” Interviewee 2

“They are basically very pleased because it's more about the Trust and the teachers autonomy we are providing those skills that if somebody is going to school they would serve out there and I'm very much sure that that is happening so actually we don't have such a lot of feedback it's just thumb up.” Interviewee 5

However, a few participants pointed out that sometimes, there can also be conflicting scenarios but overall the schools are satisfied with the student teachers' performance:

“This is a difficult situation because of course its, schools have a lot of experiences how to run the school, and how to organize teaching well but schools are also very conservative. And if we try to do something which is new in teacher education, there is always a conflict that in, between some schools, not all schools but between graduates and the schools where they start to work. If they go to a very conservative school and they have some new ideas then there might be some conflict that they are not fulfilling the expectation of that conservative school. then there are of course very kind of innovative schools which are very actively developing something and it can be that the graduate who comes from teacher education is a little bit careful in the beginning, is not able to keep her or his full capacity immediately so of course there're always this kind of things” Interviewee 1

“So we get a lot of information if something goes wrong so that's the Finnish way if we don't say anything everything goes smoothly so it's a cultural thing and we don't send this fantastic fantastic it's not our cup of tea not at all... but if the student teachers are not meeting the expectations then there is the news and then we try to find the solution how to go over this so I think and then the reason why we don't get so much information during the teaching practice is that the student teachers are very well prepared before they go to the teacher training school... and if there is a case that the student-teacher doesn't meet the expectations we try to do that Reflection In Action part meaning that we take actions before the period has ended so we cut in and have a discussion with the student” Interviewee 7

6. Discussion

The findings from this study confirmed that curriculum development is indeed complex and the whole process requires time. A lot of discussions take place between teachers and also with students. Therefore, the most prominent aspect of the curriculum development would be the cooperation and collaboration among teachers. Moreover, it is certainly research-based teacher education as the importance of research in education and teaching was emphasized a lot by the academics. According to the interviewees, there were no big changes on an overall level and so the basic structure remains the same. As a participant stated, the curriculum reform in 2016 was more like “bringing new currents into the basic structure”. Interestingly, the following text might be an explanation for why no major changes were made during the reform.

In 2006–2007 a ministerial committee was appointed and given the task of visualizing Finnish teacher education up to the year 2020 (Läroarutbildning 2020, 2007). One of the early decisions of this committee was to state that no major changes should be carried out with regard to the basic structure of Finnish teacher education. (Hansén, Forsman, et al, 2011 p.2)

Still, many implementational changes were made during the reform period and structural changes were mentioned the most by the participants. More attempts have been made to integrate ‘different areas of studies’ and between ‘theory and practice’. Also, more cooperation and collaboration between teachers have been reinforced. Some contents were shifted to the earlier stage of the program and electric exams were introduced to give students more flexibility. There are now more options to recognize previous expertise of students and all barriers that would hinder them were pulled down. The second reported change has to do with the content of the curriculum. The revised curriculum now focuses more on the use of ICT and multicultural education. The third significant change is

regarding resources. Electronic books were added to the curriculum and seminar rooms were modified to equip technological tools better. A few participants also mentioned that they had to cut down teaching hours and teachers as well.

When asked why these changes took place in the curriculum, various change drivers were pointed out by the participants and ‘society’ in general be it in Finland or globally has a great impact on the changes of the curriculum. Organizations such as OECD, European Union and international trends may also affect certain curriculum changes. On a national level, curriculum changes in schools can influence the teacher education curriculum as they are directly related. A few participants also mentioned that Ministry of education and The National board of education are important change drivers. Some of the interviewees stated that political factors may influence the curriculum as well. At the university level, student’s feedback, and teachers’ experience can affect the shape of the curriculum. A few interviewees mentioned that certain recommendations and general framework given by the university can influence the curriculum changes too. Informal contact schools may also affect certain changes in the teacher education curriculum according to one participant.

The second category of change drivers which was mentioned by the interviewees would be ‘changes or developments in research’ be it in Finland or internationally. The third category which can bring about curriculum changes is made up of different factors such as ‘changes in culture, beliefs or ideologies. As we live in society, it is only natural that society and culture have the power to constantly affect our way of thinking and acting. To sum up, all these various change drivers can affect the curriculum changes of the teacher education program in very many ways.

After looking at the implementational changes and change drivers, I would like to discuss the problems that existed in the previous curriculum and challenges that Finland is facing in education. To begin with, challenges regarding the structure and organization of the teacher education program were most prominent in the interviews. Collaboration between teachers from different disciplines, as well as coordination between Turku and Rauma units were highlighted as challenges by most of the interviewees. Moreover, it was also challenging for the teachers to integrate different courses and make them coherent as

they were quite separate. Also, the structure of the curriculum was not in line with students' needs, but that problem was solved by moving content to earlier stage.

The second most mentioned challenges have to do with 'Resources'. The majority of participants claimed that there were timing problems and that it was a challenge to balance the contact hours and workload. There were also challenges regarding personnel and one participant stated that finance is another problem as the resources for education are diminishing but the demands are growing at the same time. Furthermore, a few participants stated that teachers need support, resources as well as further education programs.

The third category of challenges are regarding topics or trends in society such as multicultural education, ICT, well-being and motivation of young people. As the society is getting more and more diverse, multicultural education becomes an essential topic in teacher education because teachers are the agents that can help students from various backgrounds integrate and adapt to the new environment. Thus, teachers need to have multicultural knowledge and skills to thrive in this changing society. Moreover, there are also challenges concerning ICT and digitalization in education. Teachers need technical support to use digital tools as some teachers may not know how to. In addition, technology is always developing and so there is a pressure to keep up with the latest trends.

Lastly, PISA outcomes have shown that boys are not doing as well as girls, so it is challenging for schools to think of ways to make school attractive for boys and support them. Some studies have also shown alarming trends that young people are not feeling well and they are not very motivated to study. One participant pointed out that the modern living style (social media, TV, etc.) does not support 'deep long-standing concentration' and serious studies so this conflict is a big problem in certain societies. Personally, I think that this conflict could perhaps be one reason behind the drop of PISA scores and young people's motivation. Also, cross disciplinary teaching is more challenging for subject teachers as opposed to classroom teachers according to one interviewee.

To tackle these pressing issues and challenges, the participants gave a variety of solutions. For example, in order to solve the conflict between modern living and traditional schooling, one interviewee stated that new teaching methods which can combine

technology and ‘demanding learning of deep understanding’ are being developed in a research project. In addition, there are now further education for teachers on themes such as digital learning and multicultural education so that they will have better knowledge and skills in these societal topics.

Regarding multicultural issues, participants provided several ways to help immigrant students in schools. First of all, Turun normaalikoulu has working models and so it can support teachers to deal with cultural issues and also there are now projects that will give emphasis on multicultural education. Besides, the website of the national board of education offers various information and support for integration. What’s more, the city of Turku and other cities provide one year of teaching to immigrant students around 8 or 9 years old so that they will be able to cope better when they start going to the normal school. The university also gives special training to teachers who will be teaching these immigrant students.

To avoid ‘negative cycles’ and improve well-being of students, one participant suggested to strengthen multi-professional work in schools meaning that teachers, parents, psychologist, curators etc work more together. In order to deal with the problems related to integration and collaboration, the participants’ advice was to intensify cooperation between teachers from disciplines and between Turku and Rauma units. One participant mentioned that new models for Parental conferences are already tried out in a research project to build effective partnerships with parents.

Timing and workload problems were dealt by shifting content from one term to another and adjusting the contact hours. One interviewee stated that technology could help in solving some problems related to contact hours as it can make studying more flexible. Next, a few participants made an emphasis that teachers design their own solutions and that they try to overcome problems together with their colleagues and students. This scenario is quite common in the Finnish society as teachers are highly trusted professionals and there is a lot of cooperation between teachers and also with students. Finally, to deal with challenges regarding cross-disciplinary teaching, one participant said that they had introduced a specific course in subject teacher education so that students will have a chance to get better at cooperative teaching.

Now I would like to move on to the curriculum development processes of teacher education program. Every two years, the curriculum reform takes place, but it is an ongoing process as minor changes are made all the way. The significant aims of this reform were to create coherence between different disciplines and to support student's learning skills so that they can become 'good professionals.' In the development of content and methods, content is mainly emphasized, and teaching methods are defined on a more general level. Several participants stated that they have 'autonomy' in developing the teaching methods as well as choosing content.

Evaluation is a vital part of the curriculum development processes and student feedback is considered to have a lot of influence on the curriculum changes. However, influence of student feedback could depend on the consensus among students and also the nature of the course or problem. Moreover, the interviewees suggested that student feedback system needs to be more effective in the future and also feedback from schools should be more systematic. There are many factors that curriculum developers have to pay attention to when developing the curriculum. First and foremost, current school situations and curriculum changes in schools need to be taken account during curriculum planning. Secondly, students' study process should be considered, for example, if something is doable or too difficult.

Moreover, developing student teachers' expertise is an important focus in the curriculum development process. There were a number of things that were kept the same during the reform. The basic structure, the model for methodological studies and Educational basic studies did not need major changes as they are functioning well. Last but not least, student teachers' performance at schools is mainly satisfying as they are meeting the expectations of the schools where they practice.

In fact, the curriculum development process of the teacher education program follows a clear structure and I would now elaborate the main procedures involved. Firstly, the curriculum development process begins with the general guidelines or framework given by the faculty. Curriculum development teams or task forces are formed, and these teams try to revise and plan the curriculum based on the general framework. These task forces are made up of professors and teachers from different disciplines and each teacher represent a

larger group of teachers from one discipline. Moreover, student representatives are involved in the planning as well.

During this reform period, the teams start holding regular meetings to plan the new curriculum. They first analyze the current situation and discuss the problems that exist in the curriculum or the society. They also carefully read the feedback from students and teachers in order to understand what is working well and what is not. After coming up with ways to tackle the problems, selecting content and revising goals, they then write a draft proposal and submit it to the department. This proposal is again submitted to the faculty board which would give the final approval. Thus, it could be said that the faculty board is the ‘decision organ’ in this curriculum development process. However, minor changes can also be done with the vice dean’s approval when needed. Indeed, the curriculum development process of the teacher education program is a long and complex phenomenon and figure 3 shows the detailed procedures as follows.

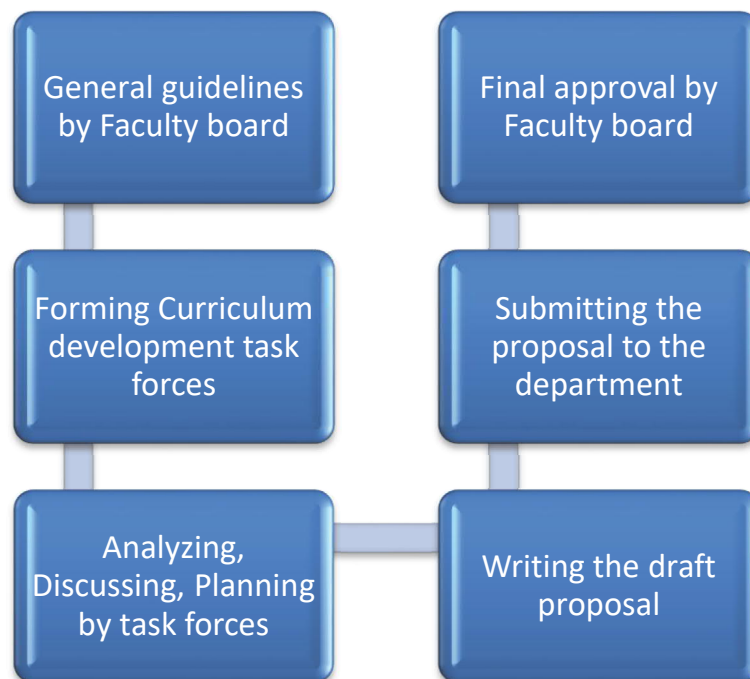


Figure 3. Procedures involved in reforming the teacher education curriculum

Based on the empirical findings and my personal judgement, I would like to state that the curriculum development model of the teacher education program at Turku university employs the mindset of design thinking. I would like to explain why I came to that conclusion by comparing the design thinking process and the curriculum development process in this study. First of all, what exactly is design thinking? There are numerous definitions around the concept but “there is no consensus on what is meant by design thinking as the notion of design thinking is broad” (Hassi and Laakso 2011 p.2)

As an example, Willness and Bruni-Bossio (2017) have described design thinking in this way: “Design thinking is a user-centric approach to innovation and invention that considers users’ needs and preferences, as well as how they interact with a potential product and its broader infrastructure.” (Willness and Bruni-Bossio 2017 p. 138) Moreover, design thinking model is well known in design and management discourses but not as much in the education field. Thus, In the book ‘Taking design thinking to schools: How the Technology of Design Can Transform Teachers, Learners, and Classrooms’, Shelley Goldman and Zaza Kabayadondo (2017) have made an attempt to explain what design thinking is and the steps involved.

“Design thinking is a method of problem-solving that relies on a complex of skills, processes, and mindsets that help people generate novel solutions to problems. Design thinking can result in new objects, ideas, narratives, or systems.” (Goldman and Kabayadondo 2017 para.1) After giving this clear and well-articulated definition, Goldman and Kabayadondo continues to describe the stages involved in the design thinking process- Empathize, Define, Ideate, Prototype, Test. While I explain these five stages, I would like to simultaneously compare them to the stages involved in the curriculum development process of this study.

There are five stages in design thinking process and the very first step is to ‘Empathize’, meaning that we try to understand the problem that someone is facing by placing ourselves in their shoes. Empathy, the foundation of design thinking process, happens to be a unique characteristic of the Finnish education as well. In the interviews, empathy became clearly visible when one of the participants mentioned that curriculum development groups should try to balance the workload and the contact hours in the

curriculum so that students have time for themselves outside university. This shows that the teachers try to understand what problems students are facing and what could help improve their academic as well as personal life. Thus, there is no doubt that the curriculum development process in this study is a human centered approach.

The second stage is to ‘Define’ the problem which means that we try to see the problem from various angles and research about it to get a deeper understanding of the problem. This stage is comparable to the situation analysis stage in the curriculum development process of this study. The curriculum developers also try to understand and define the problems or challenges in the curriculum as well as the society. They think of what is working and what is not by thoroughly analyzing the situation and discussing their standpoints.

This brings us to the third stage of design thinking – ‘Ideate’. In this stage, we do a lot of brainstorming to come up with as many ideas as possible. In the Ideating/Planning stage of the curriculum development process in this study, the task forces try to tackle existing problems by thinking about possible solutions. They think of the areas that need to be fixed or strengthened, and what could be done to improve the situation as well as predict what could potentially happen in the future.

The fourth stage of design thinking is ‘Prototype’ and it is the stage where theory turns into practice. In other words, ideas are developed into products or prototypes. A prototype can be “a product, service, experience, narrative, or system” according to Goldman and Kabayadondo 2017. In fact, this stage is similar to ‘Implementing the prototype’ stage in the curriculum development process. After revising goals, structure, content, etc., the curriculum development teams write a proposal draft which would finally be approved by the faculty board. When the revised version of the curriculum (The prototype) is completed, it is launched in the new semester.

This leads us to the final stage- ‘Test’, where the prototypes are tested out in the real world with users and stakeholders who would then give feedback on the product. Similarly, the revised curriculum is launched and tried out in practice for the new academic year. In the ‘Evaluation’ stage, teachers and students who are the direct users of this new

curriculum, would then give feedback on the courses and areas that should be improved. Then, in the next curriculum reform period, these issues would be discussed, and changes would be made again. In this way, the curriculum development process in this study is cyclical in nature and it is an ongoing process. Figure 4 and Figure 5 illustrate the design thinking model and the curriculum development model of the teacher education program respectively.

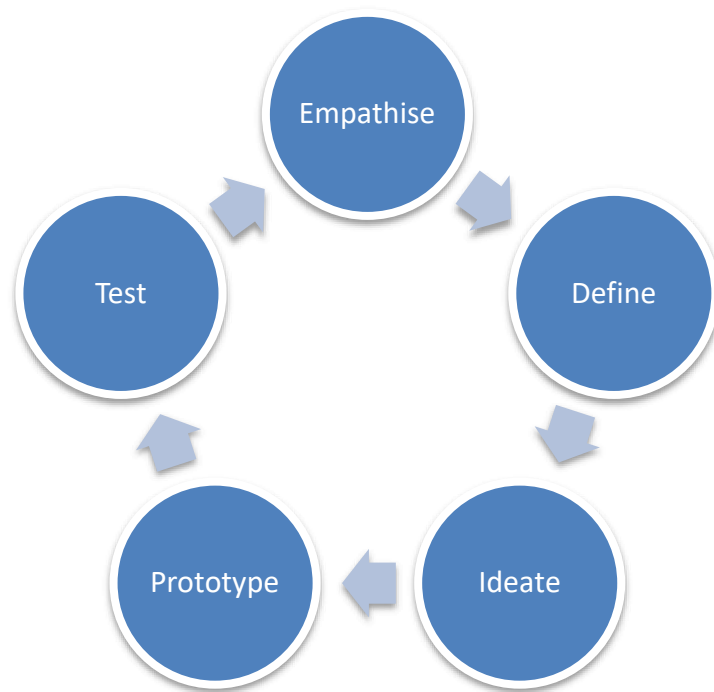


Figure 4. Design thinking model (Taking design thinking to schools: How the Technology of Design Can Transform Teachers, Learners, and Classrooms 2017)



Figure 5. The Curriculum development model of the teacher education program

Moreover, in design thinking, problem solving is a key component and is essential in creating better products or results. Also, it can be seen in this study that teachers have to come up with various ideas and solutions to tackle problems that are happening in schools and society when they are reforming the curriculum, for example, in ICT and multicultural education. Several characteristics of design thinking process were also identified by Hassi and Laakso, (2011) but according to Willness and Bruni-Bossio, these three characteristics ‘human-centered, collaboration, and holistic view’ were among the “key ingredients” that

make up the design thinking process. (Willness and Bruni-Bossio 2017 p.138) In fact, I have chosen to discuss these three main features in particular as they were quite prominent in the study.

As I have mentioned before, the curriculum development process in this study is Human centered as the curriculum developers think about the needs of the users, or students in this educational context. It can be seen in this study that the curriculum development teams tried to make changes in structure, content, etc. in order to meet the students' needs much better. This shows that developing a curriculum goes beyond just reading documents and fixing things. It means that the main emphasis is placed on humans and what they have to say.

The second 'key ingredient' of design thinking process is collaboration. Indeed, collaboration is another prominent feature in the Finnish context. There is a huge amount of cooperation within the curriculum task forces and with the larger group of teachers from each discipline. Also, the curriculum development process involves a strong collaboration between stakeholders, teachers from various disciplines, and students who are the direct users of the curriculum.

Holistic view would be the third defining factor of design thinking process and it was mentioned many times during the interviews in this study. Holistic view means that multiple perspectives are included while developing the curriculum. Therefore, different viewpoints of teachers, students, parents, stakeholders and even schools are taken into account when making curricular decisions. Moreover, Hassi, Laakso (2011) explained what is meant by holistic view as follows;

“The ability to adopt a holistic view - a 360° understanding of the problem including issues such as the customer's needs, the end-user's environment and social factors is inherently linked to design thinking.” (Hassi, Laakso 2011 p.7)

This concept was highlighted when one interviewee mentioned that the holistic view is very important in curriculum development and that understanding the root of the problem is what will help to find a solution quickly. Moreover, the participants often mentioned the importance of integration, be it between teachers, different disciplines or

theory and practice. Thus, Finnish educators have a natural tendency to see things in a bigger picture and from multiple perspectives.

To conclude, design thinking is an iterative process as stated by Willness and Bruni-Bossio (2017). It is a process in which the initial ideas are developed, tested out and then improved. Similarly, the curriculum development process of the teacher education program in University of Turku is indeed a complex phenomenon where a lot of discussions, analyzing, and logical thinking take place in order to create the most suitable curriculum that fits the current society and era.

7. Limitations

There were some difficulties during the journey of analyzing and writing this thesis. Firstly, as the interview sample was slightly small, finding common topics across the interviews was sometimes hard. Secondly, qualitative analysis is very subjective, and so it may not include all aspects but only the ones that are relevant to the research questions and seem important to the researcher. Thus, it might be the case that some other interesting themes are missed. Also, the number of participants happens to be an odd number, so it was difficult to express the ratio when I was writing up the results. For example, since there were seven participants, it wasn't possible to use the term such as half of the interviewees and when there were three people stating a common theme, the word 'some' was used instead of less than half. If there were only two participants agreeing on a topic, then the words 'a few or a small number of interviewees' were used in reporting the results. On the occasion that there were four or more participants, the term 'majority' was used to present the number of participants.

Regarding the theme 'Problems or challenges', they were asked in two separate questions in the interviews for example, problems in the previous teacher education curriculum and challenges in education. But later, these two topics were merged into one theme because some participants used the terms interchangeably and it also made more sense to group them into a single category. But it was somewhat confusing at first to decide how to group these in a proper way since some categories overlap with one another and also some themes are interrelated. Last but not least, the curriculum development model in this study may not be generalized to other Finnish universities as the samples were solely from Turku University. Therefore, for future researchers, it would be ideal to include samples from various universities in order to get a more holistic picture. Also, further research should be done to confirm that the curriculum development model in this study employs the mindset of design thinking as well as to follow up with constant changes and challenges in the curriculum.

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