

**Reconceptualization of English Teacher Beliefs and Practices Related to Teaching
and Learning as a Result of Working at Nazarbayev Intellectual Schools**

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Declaration

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, or substantial proportions of material which have been submitted for the award of any other course or degree at NU or any other educational institution, except where due acknowledgement is made in the thesis. This thesis is the result of my own independent work, except where otherwise stated, and the views, expressed here are my own.

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Ethical Approval

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- To grant approval for this study
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Sincerely,

NUGSE Research Committee

Dedication

I dedicate this thesis to my family for giving me support and energy to write my Master thesis. Notably, I would like to dedicate my study to my eldest daughter Mariyam, who being also a student of Nazarbayev University, pushed and inspired me to complete writing my thesis.

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Abstract

The problem of teacher change in beliefs and practices is crucial in the light of recent educational reforms in Kazakhstan where Nazarbayev Intellectual schools are seen as an experimental site for development and implementation of the new learner-centered curriculum. The study focuses on the process of teacher change, in particular how purposefully selected four English teachers in one NIS schools have changed their beliefs and practices about teaching and learning as a result of working in the NIS environment. The case study, which employed an in-depth interview-based qualitative approach, also explores the main enabling and inhibiting factors that influenced the NIS teacher change process. The study also attempts to describe the model of teacher change process for those four NIS teachers. The study offers some key recommendations for different groups of stakeholders.

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Chapter 1. Introduction

In this chapter, I present the study that is part of my Master's Programme at Nazarbayev University. The topic of my research is reconceptualization of English teacher beliefs and practices related to teaching and learning as a result of working at Nazarbayev Intellectual Schools (NIS).

In the first section, I discuss the Background Information to establish the context for the study, followed by the Statement of the Problem, the Purpose of the Study and Research Questions. Then the Significance of the Study is presented to justify the importance of the study. Finally, the Outline of the Thesis provides the structure of the study.

Background Information

In this section, I present the context of the study to deepen understanding of the problem of the study. The information sheds light on the origin of NIS as well as its role in reforming education in Kazakhstan.

According to Kennedy (1996), the reason why many governments invest funds in education relates to the vision held of the educational process as producing the generation of intelligent labor force who will be capable to function in conditions of constant change. A new era of integration, collaboration with international partners and globalization has brought the need to educate a new Kazakhstani generation who will be equipped with all the necessary 21st century skills. Since the existing traditional system of education with a Soviet legacy was unable to meet this demand, it became obvious that the educational system of Kazakhstan needed reforms and modernization. Thus, on March 12, 2008 the President of Kazakhstan initiated a unique project to establish a network of Nazarbayev Intellectual schools (NIS) in all regions of Kazakhstan.

The first role of NIS according to the State Programme of Education Development in the Republic of Kazakhstan for 2011–2020 (the Programme) was defined as being an experimental site for such innovations as new curriculum and assessment development, its implementation, monitoring, research, and analysis. To achieve this task, NIS are developing and implementing the innovative educational model that attempts to integrate the best national and international experiences. The second role implies that the NIS innovative educational model should be adapted to be transferred to the whole education system of Kazakhstan. This task is realized through the process of renewal of the educational standards of Kazakhstan. In other words, NIS are expected to bring change to the educational standards through the development of the new educational content.

It should be noted that the NIS system is not similar to the state educational system in many ways. Autonomous Educational Organization of Nazarbayev Intellectual Schools is a non-commercial organization established by the Law of the Republic of Kazakhstan ‘On Status of Nazarbayev University, Nazarbayev Intellectual Schools and Nazarbayev Fund’. This means that while all educational organizations in Kazakhstan have to work under the unified educational standards, the autonomous status of Nazarbayev Intellectual Schools provides academic freedom in the development of innovative educational programmes. Moreover, while in mainstream schools teachers are dominantly locals, there is normally a mix of local and international teachers at NIS schools where most local teachers are typically teachers who used to work in mainstream schools before joining NIS. Before becoming NIS teachers, national teachers all have undergone three stages of competitive selection (questionnaire, testing and interviewing) aimed at assessing their professional and personal qualities. A good competence in ICT and English as the medium of instruction as well as using modern teaching approaches are required for NIS teacher candidates. International teachers recruited from all over the world are expected not only to provide quality teaching, but to share international teaching

methodology and techniques through collaborating, team-teaching and mentoring NIS local teachers.

Since NIS has an autonomous status, more finance and academic freedom are allocated and NIS teachers are provided with more professional development opportunities, resources and facilities, such as reliable access to the Internet, printers, scanners, personal computers and smart boards. Moreover, most NIS teachers teach in classes with a maximum of 12 students, who are also admitted through a competitive selection process. What is more important is that since NIS is an experimental site, and NIS teachers work in a constant mode of implementing innovations. For example, currently teachers in all NIS schools are implementing the new learner-centered curriculum which was developed in collaboration of Kazakhstani and international curriculum specialists and teachers. The new curriculum, based on a constructivist view, implies that students construct their knowledge and skills through inquiry, being active participants in learning process. Throughout their professional career at NIS, teachers who have been implementing the new curriculum since 2012, have participated in numerous professional development programmes and training which help them in acquiring knowledge and skills on new teaching approaches. Thus, working in the innovative and autonomous NIS environment with rich learning opportunities can be assumed as a prerequisite for significant changes in NIS teacher beliefs and practices.

Conditions in most mainstream schools are not as favorable as those described above. First of all, according to OECD (2015) because the effective use of resources is hindered by poor local and school autonomy, there is little flexibility for mainstream schools to provide more investment in human and physical resources, for example, through raising teacher salaries, providing quality teacher professional development or better equipping schools. Secondly, teachers in most mainstream schools are not selected rigorously. Thirdly, beyond teaching they have to accomplish extra tasks, such as participation in organizing the census of

population and local executive bodies' elections, the registration of children of preschool age, ensuring the number of participants at various public events; all these have an impact on their quality of teaching. In other words, insufficient financing and resourcing, lack of rigorous selection of teachers and teacher overload leads to low quality of learning environments, lack of high quality teachers and, consequently less possibility to provide students with quality education. In these terms, it should be pointed out that in all mainstream schools teachers work on the prescribed traditional teacher-centered curriculum which mostly uses direct knowledge transmission and implies that teachers explain and deliver knowledge to their students. Moreover, OECD (2015) recommends that more professional development is needed for teachers and leaders of mainstream schools to ensure high quality teaching.

Thus, it can be concluded that two existing school systems (NIS and mainstream schools) are critically different in terms of curriculum, professional development, resources and facilities, and consequently, in terms of providing opportunities to change teacher beliefs and practices so as to ensure quality teaching and learning. However, despite such significant differences in the conditions of the two systems, nevertheless in the light of current educational reform it is expected that the curriculum developed by and for NIS schools will be adapted and rolled out to mainstream schools.

Statement of the Problem

Despite the fact that there is a significant difference between the two educational systems, many current NIS teachers have previously worked in mainstream schools. Therefore, when they move to NIS system, they have to adapt to a new working environment, which likely require changes in their beliefs and practices. It should be noted that the fact that current NIS teachers used to work in mainstream schools may mean that they have extensive experience of teaching with teacher-centered curriculum. Moreover, it is possible to claim that

being students at schools and universities they have observed many hours of teacher-centered teaching which influenced the formation of their core beliefs about teaching and learning, which many researchers describe as the most resilient or even impossible to change (Clark and Peterson, 1986; Richardson, 1996).

In this case, it is possible to assume that teachers who start their professional careers at NIS schools with preexisting traditional teacher-centered beliefs and practices have to implement the student-centered curriculum which challenge and confront their previous beliefs. Moreover, the problem may have a broader scale in the context of reforming secondary education in Kazakhstan because teachers in all mainstream schools are expected to implement the adapted NIS curriculum.

In these regards, Richardson (1998) states because teachers may resist changes which do not match their existing beliefs, implementing innovations without considering teacher beliefs is likely to lead to disappointment and failure. Thus, it is possible to state that the process of teacher change needs deeper understanding so as to provide appropriate conditions for implementing changes.

The central phenomenon of teacher change in beliefs and practices, in particular the process of teacher change is not always taken into account while implementing innovations. The lack or insufficient knowledge of the teacher change process may lead to superficial changes in teacher practice or even to resistance to change teaching practice which consequently, do not improve student learning. Hargreaves (1994) claims that even though changes may “look impressive when represented in the boxes”, they can be superficial since they “do not strike at the heart of how children learn and how teachers teach” (p. 11). However, knowing the process of teacher change may help to facilitate those changes and provide appropriate conditions and support at certain stages for teachers who go through changes. Kennedy (1996) claims that teachers who adopt and

implement new approaches are under double pressure since they have not only to change their teaching beliefs but they are to pass on those changes through their teaching practice so as to change student learning. These pressures may put teachers under strain and if there are no appropriate professional conditions provided, the successful implementation of innovations are under threat.

This study allows looking at currently implemented changes through NIS teachers' eyes to more profoundly understand how they have changed as teachers and personalities while working in the context of innovations, what pitfalls they had to overcome, how they felt emotionally, and what supported them in the process of change. NIS teacher stories with teachers' voice may help to reveal the process of teacher change in the context of implementing innovations and identify the possible model of this change.

Purpose of the Study

The purpose of this qualitative interview-based study is to explore the reconceptualization process in beliefs and practices related to teaching and learning experienced by English teachers while working at one NIS school.

Four NIS teacher-practitioners were selected for this study using the purposeful sampling method. Purposeful sampling according to Creswell (2014) helps the researcher deliberately select people and sites to better apprehend the central phenomenon. The number of years of experience working at NIS was considered as the first criterion when selecting the participants. For this particular study, teachers who had no less than three years of experience in NIS made up the group of participants.

Research Questions

1. How have teachers' beliefs and practices related to teaching and learning changed while working in NIS?

2. What was the process of reconceptualization for these teachers during the period of working in NIS? What are the different phases they go through during this process?
3. What were the catalysts and barriers to the reconceptualization?

Significance of the Study

The research will help to bring to light for NIS departments and centers the issues related to teachers' experiences of innovations being implemented so as to modify policies on professional development courses and provide congruent conditions for successful implementation of introduced innovations.

Another group that may benefit from this study is NIS novice teachers who come to work to NIS schools and struggle to try new practices during the first year. The NIS teachers' stories about changes may help those novice teachers to adapt to the new context as well as to inspire them to change their practices.

The study's findings will also help mainstream school teachers who being already implementing the new curriculum, are expected to change their practices. The NIS teachers' professional journeys may help them to more precisely understand themselves and be aware of the change process.

Moreover, policy makers from the Ministry of Education and Science may potentially benefit from this study because understanding how NIS teachers learn and change may help to identify some possible issues of working in the context of changes and predict the possible scenario in which Kazakhstani mainstream schools teachers have to implement the new educational standards.

Finally, this study is also significant because the new NIS student-centered curriculum adapted for Kazakhstani mainstream schools is already being transferred to the first 30 pilot mainstream schools located across Kazakhstan. Therefore, the challenges and opportunities

which novice teachers experience at NIS schools are likely to be experienced by all those teachers in mainstream schools while implementing the NIS student-centered curriculum.

Conclusion

In this section I described the context of the study providing the relevant background information which helped to deepen understanding of the problem of the study, its purpose and research questions as well as why the study is important and who may benefit from it. The next chapter aims to provide the review of literature on the topic of the study. Chapter three describes the methodology of the study, followed by chapters four and five which present findings and discussion of the study. The last chapter establishes implications and recommendations of the study.

Outline of the Thesis

There are six chapters in this study including the introduction in Chapter 1. The context and the problem of the study are discussed in Chapter 1. Additionally the significance of the study and the purpose of the study followed by the research questions are presented in the same chapter.

The Literature Review in Chapter 2 discusses different studies on the problem. The topics in Chapter 2 are organized in sections and subsections related to the research questions. For example, there are sections on catalysts and inhibitors for teacher change in the Literature Review. Moreover, Chapter 2 reviews different studies on the concept of teacher change and models of teacher change process.

The Methodology presented in Chapter 3 provides explanations on the study design, sampling and site. Data collection procedures and data analyses approach are included in Chapter 3.

Chapter 4 and Chapter 5 contain findings and discussion of findings respectively. The discussion of findings is done through comparison and confirming with the results of other studies from the literature review.

Finally, Chapter 6 with its Conclusions and Recommendation presents the main conclusions related to the research questions. There are also recommendations both for different groups of people and organizations and for further research in the similar area as well.

Chapter 2. Literature Review

Introduction

Teacher change is discussed in numerous studies but described in various ways and from different perspectives. This chapter discusses the main concepts of teacher change including different perspectives and categories; the relations and sequence of elements of the teacher change process; facilitators and inhibitors of the change process; and models of teacher change from different studies. This review is organized in four major sections relating to the research questions of the study. It attempts to provide firstly existing theories and interpretations related to teacher change in beliefs and practices and their relationship from different studies in the literature. In the second and third sections, I discuss main catalysts and inhibitors of the teacher change process. Finally, I present different models of change from various studies and justify the models of change used to build the theoretical framework for the study. Just before the Conclusion, I provide the Conceptual Framework which represents the synthesis of reviewed studies in relevant literature and helps to pursue this research.

Teacher Change

In this section, I discuss the existing theories on the concept of teacher change; on the nature of teacher beliefs and practices; the contradicting issues of change in teacher beliefs and practices; the relationship between beliefs and practices, and finally, the sequence in which change in beliefs and practices may occur from different studies and literature.

What is teacher change? Having studied the literature and research on the concept of teacher change, it should be noted that teacher change may refer to many things; it can be discussed from different perspectives and interpreted in different ways.

First of all, there are many studies where teacher change is mainly discussed from the perspective of professional development in the context of broader educational reforms where

teachers who implement a new curriculum are expected to change their beliefs and practices; and changed beliefs and practices are expected to improve student outcomes (Anderson, 2012; Guskey, 2002; Fullan, 1993; Hargreaves, 1994). In this case, the new curriculum being a means to change teaching and learning and improve student outcomes, is considered as a main prerequisite for teacher change; and professional development in this regard is viewed as one of effective interventions aimed at supporting the teacher change process. Moreover, teacher change is discussed in many studies both at the level of individual teacher change and wider school or system change. Individual teacher change is interrelated with school change since teacher change may change school environment whereas school environment may influence how teachers change.

Another interpretation of teacher change was done by Clarke & Hollingsworth (2002) who provided six descriptions of teacher change from the perspective of professional development: change is understood as *training* teachers for change; when teachers adapt their practices to changed conditions change refers to *adaptation*; when teachers try to improve their enactment or learn supplementary skills change is interpreted as *personal development*; change may be presented as *local reform* when teachers are expected to change something; when teachers perform as change policies of a certain system change is regarded as *systematic restructuring*; finally, when teachers change as a result of participating in professional activities being learners themselves change may mean *growth or learning*. The description of teacher change of Clarke & Hollingsworth (2002) emphasizes the key role of teachers, the scale of the changes and the idea of professional growth.

The above described interpretation of teacher change by Clarke & Hollingsworth (2002) can be used to understand the case of NIS teacher change. First of all, NIS teachers are currently implementing a new learner-centered curriculum which implies that teachers change their concepts of teaching and learning towards learner centeredness which can be gained

through using new methodology and approaches. Secondly, for successful implementation of the new curriculum, NIS teachers are intervened with professional development where NIS teachers learn new approaches. Moreover, the NIS school environment has influence on NIS teachers' work. Thirdly, it is expected that while implementing the new curriculum NIS teachers change their beliefs and practices, which in turn should have a positive impact on student outcomes. Finally, changes in NIS teacher beliefs and practices as well as improved student outcomes could lead to changes in NIS school environment.

Interestingly, many scholars emphasize that teacher change is a process and claim that changes in beliefs and practices do not happen at once (Englert, Raphael & Mariage, 1998; Fullan, 1993; Hall & Hord, 2001). In these terms, they criticize the short time limits, for example, one-year or less, of many teacher professional development programmes. They claim that teacher conceptual change may take place within the period of three to five years. Kennedy (1996) highlights that change may be more or less stressful; and slower and faster for different teachers depending on how far teacher should move away from their previous to new practices.

Thus, teacher change for this study means the process which requires certain time and where teachers change their beliefs and practices through teaching the new curriculum and learning new approaches. Therefore, it is necessary to understand more deeply existing theories about teacher beliefs and practices, which follow in the next subsections.

How are teacher beliefs and practices categorized? To understand the central phenomenon of teacher change, it is necessary to point out that teacher beliefs and practices are closely related to teacher change because according to many researchers, teacher beliefs predetermine teacher actions (Borg, 2001; Pajaras, 1992). Moreover, Wedell (2009) (as cited in Uztosun, 2013) states that teacher beliefs and practices are considered critical in the process of implementing an educational change.

There are generally four categories of beliefs identified in many studies related to teacher beliefs. These are beliefs about how teachers teach and how students learn; beliefs about teacher and student roles and their relationship in the classroom; and beliefs about what is taught and what is learned (Kagan, 1992; Morine-Dersheimer & Kent, 1999; Pajares, 1992). However, Richards et al. (2001) claim that because beliefs discussed in different studies may be general and specific, the number of categories of teacher beliefs may vary accordingly. In their study Richards et al. (2001) examined second language teacher beliefs in order to identify changes in teacher practices. Nine common beliefs which they could find in their study were related to:

- Grammar role and its focus in teaching;
- Learners
- Language skills
- Teacher characteristics
- Class atmosphere
- Purpose of teaching and learning
- Teaching procedures
- Methods
- Role of practice

If we look at the identified categories of beliefs in the study of Richards et al. (2001), it is possible to state that despite the fact that they are more language specific, still they can be related to four common categories of teacher beliefs described at the beginning of this subsection.

Having identified categories of teacher beliefs which indicated that those teachers changed their beliefs from teacher centeredness to student centeredness, Richards et al. (2001) used those categories further to examine how those changes in teacher beliefs were reflected in teacher practices. As a result their study identified six major changes in teacher practices as follows:

- Learner centeredness
- Basic teaching philosophy

- The use of materials and resources
- Language learning activities
- Teaching grammar
- Teacher confidence

Richards et al. (2001) compared the identified categories of changes in practice with the categories found in Bailey's study (1992) which are:

- Shift from teacher-centered classes to student-centered
- Use of various and authentic materials
- Shift from accuracy to communicative competence
- Reduced focus on grammar rules
- More use of group work
- More use of students' projects
- Change in attitude
- Change in procedures of teaching

Since Richards et al. (2001) and Bailey (1992) conducted their quantitative research with language teachers, therefore some of the categories described above are language specific while some categories, being more general, can be applied to teaching any other discipline.

To conclude, since beliefs and practices may be categorized in different ways in many studies, there is no specific list of categories identified from literature and studies.

For my study where the participants included language teachers, the following categories of changes in beliefs and practices were considered as the most relevant from a primarily theoretical basis and will be used as a framework to interpret the reconceptualization of teachers' beliefs and practices on this study:

- More communicative activities, less drilling grammar rules
- Learner centeredness
- Using various and authentic materials and resources
- Lesson planning, lesson structure
- Change in beliefs, attitude and roles
- More active learning

The chosen categories reflect some of the major features of the learner centered English new curriculum which has been implemented in all NIS schools since 2012. However, it should

be noted that the above stated list of categories for the current study was not considered initially as limited, since it was assumed that other categories could emerge from the data.

Possible or impossible to change? Numerous studies have shown the importance of understanding how teachers change their beliefs and practices. However, a key problem with much of the literature in relation to teacher beliefs is the question of whether teacher beliefs are possible or impossible to change. Mihaela & Alina-Oana, (2015) conclude that while some studies show that teacher beliefs can be changed through training, other studies display limited or even hard changes in teacher beliefs. Clark and Peterson (1989) assume that teacher prior beliefs about learning which were formed while they were learners themselves are the most resistant. Richardson (1998) claims that even though teachers change all the time, they may be more resistant and reluctant to external change that goes against their existing beliefs and values.

Nevertheless, some researchers seem to be more enthusiastic concerning changes in teacher beliefs. For example, Hunzicker (2004) states that it is not easy to change teacher behavior unless instructional leaders can gain a better understanding of the process of change and the reasons why teachers resist change. James (2001) argues that teachers change their beliefs while they learn. Nagamine (2007) summarizes the concept of teacher belief from numerous studies in the literature in which teacher belief is defined as rebuildable rather than stable in nature since teachers may reconstruct teaching and learning experiences. He argues that beliefs can be shaped by experiences.

Thus, it could be assumed that although changes in teacher beliefs are not always easy and fast, changes in beliefs are possible if certain conditions are provided.

Do practices always reflect beliefs? Another refuted issue reported from a number of research studies argues that what we hear from teachers in terms of change cannot be seen in

real practice. Multiple studies confirmed that there is weak connection between teachers' beliefs and their practices. In other words, teacher practices do not always represent teacher beliefs. For example, Duffy and Anderson (1984) in their study report that only half of eight teachers employed practices that reflected their beliefs. Likewise, Ni & Guzdial (2008) in their study were concerned to find that even though teachers felt positive towards the exposed innovation, they never brought it into their classrooms. Hoffman and Kugle (1982) report that they did not find a significant connection between teachers' feedback and their beliefs about reading.

Since lesson observations were not included as an instrument for data collection, therefore, this study does not aim to investigate the consistency of teachers' beliefs and practices. However, it is important to be aware of the possible inconsistency of teachers' beliefs and practices and in these terms the relationship of changes in beliefs and practices could be taken into consideration, though not focused, in this study when exploring the process of change in NIS teacher beliefs and practices.

What changes first: beliefs or practices? Another point that is contradictory in different studies is the sequence or the order in which changes in teacher beliefs and practices occur. For example, Guskey (2002) assumes that many professional development programmes expect to bring changes in teachers' classroom practices, in their attitudes and beliefs, and in student outcomes. However, he claims that the fact that the process of teacher change and the sequence of change are not considered in many professional development programmes, there is a risk that such programmes are not effective. Therefore, Guskey proposes his Model of Teacher Change in which significant change in teachers' attitudes and beliefs happens only after they have evidenced the improvement in students' learning outcomes using a new approach and consequently teachers change their attitude. Moreover, he emphasizes that teachers are likely to repeat and keep using this new approach and perceive it positively. Furthermore, vice versa, in

situations in which teachers do not experience success and evidence of improvement, they are likely to drop that new approach as being unhelpful.

However, some researchers state that before teachers change their practice they need to change their beliefs (Bailey, 1992; Golombek, 1998; Hampton, 1994). Similarly, Richards et al (2001) and Richardson, Anders, Tidwell, & Lloyd (1991) assume changes in teachers' practices are the result of changes in teachers' beliefs. The proponents of this view explain that certainly teachers rely on their beliefs when they plan their lessons or as they choose resources and activities.

Overall, it is not clear in what order change in beliefs and practices normally occurs. However, what is clear is that changes in beliefs and practices may be hindered by teacher prior experiences as a learner. Changes in beliefs and practices, being a process, do not occur at once but may require certain time. Changes in beliefs and practices do not always take place simultaneously nor do changes necessarily occur in both beliefs and practices. To understand more deeply the process of teacher change, it is important to explore the catalysts and barriers to change from different studies and relevant literature.

This section established some common theories about the concept of teacher change; the nature of teacher beliefs and practices, and the relationship between beliefs and practices in terms of changes. The next section discusses existing theories on factors which facilitate teacher change from different studies.

Facilitators of Teacher Change

Numerous studies have found that teacher change is influenced by certain factors which may facilitate the process of teacher change. This section discusses the main facilitators of teacher change from different studies.

Professional development. It is widely accepted by many studies that professional development may become a significant catalyst to teacher change. Spillane (2002) claims that support is critical when teachers are expected to change their instruction in the context of implementing new curriculum because teachers may lack content knowledge on the new instruction. Therefore, teachers implementing educational innovations need curriculum content knowledge, pedagogical content knowledge and knowledge about student learning and in these regards, professional learning is seen as one of the possibilities to fill the gaps in teacher knowledge (Anderson, 2012; Borko, 2004; Darling-Hammond, 2000; Sulman, 1986; Timperley, 2008).

However, it should be noted that having studied the literature, it is possible to state that there are two forms of professional development which are mostly discussed in terms of supporting teacher change. They are traditional or formal professional development and job-embedded or context-based professional development. Moreover, it seems that studies in this area are divided into two opposing stances in the debate about the effectiveness of formal professional development and ongoing context-based teacher professional learning in terms of facilitating teacher change. For example, such forms of top-down formal professional development with an external trainer or expert as workshops, training and courses are criticized by many researchers for having little impact on teacher change (Garet et al., 2001; Parise & Spilaine, 2010).

Nevertheless, the other half of scholars advocate workshops as providing teacher motivation to discover new initiatives. In their study, Thomas and Ward (2006) found that workshops were valued most highly by teachers since such forms of professional development introduced teachers to new content knowledge and pedagogical content knowledge. Moreover, the teachers became confident after they had used some specific activities during these workshops. In these regards, it should be noted that many studies emphasize that outside-

classroom formal professional development activities are effective in terms of changing teacher beliefs and practices if, firstly, they are closely related to teacher classroom context; and secondly, teachers in those professional activities are seen as actively participating rather than just listening and observing. In this case, such a form of professional development may become a critical catalyst to teacher change. (Higgins, 2006; Lave & Wenger, 1991; Graven, 2004; Smith & Gillespie, 2007).

Thus, it can be concluded that formal professional development provides teachers with new content knowledge and pedagogical content knowledge. Moreover, formal professional development conducted outside classroom by an external expert or trainer may facilitate teacher change only if there are opportunities for teachers to actively participate and try new approaches in the context which is closely related to their classrooms, which consequently, motivates teachers to use the new approaches.

Another form of professional development that has proven to be helpful in facilitating teacher change, relates to informal, ongoing job-embedded learning opportunities because they are closely related to the teacher classroom context and imply collaboration and active participation of teachers (Richardson & Placier, 2001; Vetter, 2012; Smith & Gillespie, 2007). Smith & Gillespie (2007) emphasize that a focus should not be only on trying new approaches but rather on studying student performance data and student thinking.

Such a form of professional development is described and identified differently in many studies, for example, one may find teacher study groups, mentoring, joint planning, internships, action research, and practitioner research. Vetter (2012) claims that since the above-described form of professional development implies inner and outer conversations of teachers, there should be time provided for such a form of professional development.

However, some researchers take the above-described form of professional development with caution since there are cases in which collaborative learning opportunities did not change

teacher practices but rather distracted them. For example, Little (1990) claims that informal collaborative learning activities which occur outside teacher classrooms, for example, sharing resources and ideas or joint planning did not challenge or disturb teacher current practices and as a result left teachers with their existing practices. She advocates collaborative learning which is closely related to teacher classroom practices.

Thus, it can be concluded that different forms of professional development which occur outside and inside classrooms and schools are considered most effective for facilitating teacher change through providing teachers with knowledge and skills and connecting that new knowledge and skills to their real classroom contexts. What is more important, professional development should be focused on student learning through exploring student works.

Collaboration. Collaboration is reported in many studies as another facilitator of teacher change. Anderson (2012) states that a main catalyst to change is provided by collegial interaction during which teachers “support each other in planning, understanding new ideas, the use of new resources and tools, reviewing student achievement and spending time in each other’s classrooms” (p. 43). Kennedy (1996) assumes that although teachers work as individuals in their classrooms, successful change may occur if individuals form groups. He claims that even small groups may produce a power for change within a school or a system over the work of an individual teacher. Bonner (2006) was engaged in a one year project of action research with two teachers. Her role was to guide and support those teachers in the project. She was interested in how teachers’ attitudes changed through participating in collaborative inquiry and the factors that contributed to this change. Bonner (2006) reports that for teacher professional growth certain conditions are critical such as opportunities for collaboration, teacher autonomy, teacher reflection as well as time provided for professional development, and culture of inquiry. Fullan (1993) claims that because collaboration helps to

increase teacher capacity to change, collaboration should be regarded as a critical skill which teachers should initiate, appreciate and practice.

However, in some studies and literature, collaboration is found to be quite difficult to achieve due to lack of time provided for collaboration. Surprisingly, even if time is allocated for collaboration, there is no guarantee that it may be used for collaboration or that the collaboration performed was true collaboration. For example, Hargreaves (1994) claims that scheduled and controlled collaboration driven by school administration often leads to safe simulation which Hargreaves (1994) calls *contrived collegiality*, which in reality may become a burden for teachers. He advocates unplanned, desired, product-oriented and spontaneous collaboration among teachers because such form of collaboration does not impede teacher autonomy and is responsive to teacher needs.

This section presented the most commonly referred factors which enhance the teacher change process from different studies. The next section reviews the main factors that inhibit teacher change from literature and studies.

Inhibitors of Teacher Change

Prior beliefs and practices. One of the main barriers frequently identified in many research studies relates to resistance to new ideas evoked by dissonance between previous and new practices when the beliefs underpinning previous practices are not consistent with newly introduced practices (Molebash, 2010; Pintrich, Marx, and Boyle, 1993). According to Lortie's theory of apprenticeship of observation (1975), teacher previous beliefs have been developed over a long time spent at school. Clark and Peterson (1989) assume that those prior beliefs are central and the most resistant beliefs. Similarly, Dole and Sinatra (1998) point out that the process of teacher change includes mental and motivational concerns as well as the degree of learner commitment to old ideas. According to O'Loughlin (1989), most teacher

learners in their previous experience had performed successfully as learners in a traditional context. Having been exposed to moving away from their traditional conceptions of teaching towards constructivist pedagogies that confront their prior beliefs, it is natural for them to feel anxiety and fear at this point. Kennedy (1996) highlights that change may be more or less stressful for different teachers depending on how far a teacher should move away from their previous to new practices. He assumes that teachers need time and space to try out new ideas.

To help learner teachers change their traditional beliefs and practices, Molebash et al (2009) stress that it is essential to provide them opportunities to relearn so that they could experience afresh being a learner but this time in a constructivist environment. Similarly Dhindsa and Anderson (2004) also emphasize that when learner teachers face challenging experiences, this requires them to rethink their previous experiences. Another solution to change teacher beliefs as seen by Timperley (2008) is to provide such opportunities for teachers through which they could be prepared to consider the limitations of their previous practices and during which they could be facilitated to try new approaches.

However, Loucks-Horsley and Stiegelbauer (1991) and McCarty (1993) claim that even if teacher beliefs and practices can be targeted enthusiastically through professional development, some teachers possibly will need months or even years to completely undertake a change in behavior. In these terms, it should be noted that many scholars criticize the short timeframe, for example, one-year or less, of many teacher professional development programmes. They claim that teacher change may take place within the period of three to five years (Bishop, et al., 2010; Englert, Raphael & Mariage, 1998; Hall & Hord, 2001; Loucks-Horsley, et al., 2003). Thus, changes in teacher beliefs and practices require a longer timeframe.

Overall, it can be assumed that teacher prior experiences as learners may act as a serious catalyst or an inhibitor to teacher change depending on what pedagogies they have encountered

and experienced as learners themselves. Moreover, the more differences between previous and new beliefs and practices, the more time is probably needed for the change process and the more painful this process may be.

Lack of time. Lack of time is reported as a critical barrier to teacher change in numerous studies in the literature (Hargreaves, 1994; Hall & Hord, 2006). Teachers implementing new approaches need more time for lesson planning and preparing resources. For example, Hargreaves (1994) claims that time is critical for teachers since through time teachers construct their work. However, time is perceived differently by teachers and administrators and in these terms he identifies four dimensions of time which are *technical-rational*, *micropolitical*, *phenomenological* and *sociopolitical*.

According to Hargreaves (1994), *technical-rational* time is seen as means for administrators to implement innovations. In these terms, time can be manipulated, allocated, decreased and increased by administrators depending on how the implementation process evolves. For example, administrators can allocate time for scheduled collaborative planning for teachers. However, he emphasizes that there is no guarantee that such imposed time allocation is always used by teachers for collaboration but rather recent studies in this area claim that teachers are likely to use it for lesson planning in isolation. He explained this by the fact that because many teachers value their time they prefer not to spend it for relaxation and informal conversation with colleagues but rather they are likely to use it as individual preparation time.

Micropolitical time is referred by Hargreaves (1994) as scheduled and distributed time for teachers to teach subjects. In other words, micropolitical time is related to time spent by teachers in their classrooms. In these terms, he points out the fact that because teachers have less time away from their classrooms than school administrators, this “reflects the differences of status and power between teachers and administrators” (p. 99).

According to Hargreaves (1994), *phenomenological* dimension of time, being subjective by nature, is related to personal sense of time. He asserts that in the context of implementing changes, there is a conflict between different perceptions of time among teachers and administrators which leads teachers to experience pressures because they are implementing innovations more slowly than expected by administrators. Explaining the differences in time perceptions between teachers and administrators, Hargreaves (1994) discusses two perspectives of time by Hall (1984) which are *monochronic* and *polychronic*, in which the former is seen as administrator-driven linear and scheduled time when one thing is done at a time and the latter is described as teacher-lived time with several things which are done at the same time.

Sociopolitical time dimension is seen by Hargreaves (1994) as administrative dominant and related to the control of teacher time in the curriculum implementation process. In these regards, he defines two aspects of sociopolitical time: *colonization* and *separation*. *Colonization* is described as taking up teacher time for administrative purposes. For example, trying to increase teacher preparation time, administrators use away-from-classroom teacher time for meetings or scheduled planning. However, Hargreaves (1994) advocates that to have away-from-classroom teacher time is critical for teachers because it helps them to release stress through informal interaction with each other and to gain a sense of flexibility to manage multiple things in their polychronic teaching profession.

Because time assumptions are different between administrators and teachers, this leads to different paces of implementing changes which Hargreaves (1994) identifies as *separation*. For administrators with monochronic and linear time view, teacher change in curriculum implementation is seen as a single change, whereas for teachers who have polychronic view of time, change means doing multiple things. While implementing changes in their classrooms, teachers try to make changes in their practices meaningful and to keep their changed teaching manageable, and in so doing, they often simplify changes or slow them down. The slower the

teacher change, the more intensive the pressures from administrators occur. This leads to *intensification* of the teaching profession which is defined by Hargreaves (1994) as ‘bureaucratically driven escalation of pressures, expectations and controls’ over teacher work and time; and which is discussed in many studies as another constraint to teacher change (p. 108).

To decrease the gap between different dimensions of time and to facilitate implementation of changes, Hargreaves (1994) suggests that teachers should be provided with more freedom and responsibilities to manage and allocate their time.

To summarize the key points of time theory discussed by Hargreaves (1994), it is possible to conclude that:

- Time is a crucial concept in the context of implementing changes;
- Time can be administrator-driven and teacher-lived;
- Time is perceived differently by teachers and administration because teachers have a polychronic and subjective vision of time while administrators perceive time monophonically, linearly and objectively;
- Providing additional time does not ensure the successful implementation of teacher change.

Intensification. Intensification is discussed in many studies as a critical inhibitor of the teacher change process. Hargreaves (1994) states that the more innovations are implemented, the more accountability and control are imposed over teachers who implement changes, and the more pressures are meant for teachers because teacher roles and responsibilities are increased. This may lead to two possible outcomes which are teacher intensification and professionalization.

Summarizing the most common assumptions related to intensification from many studies, Hargreaves (1994) claims that intensification leads to decreased time for relaxation, for recharging one’s skills and for preparation time and consequently, for providing quality

teaching. Surprisingly, many teachers unconsciously support intensification increasing their teaching hours to provide quality teaching. Hargreaves (1994) explains that this happens because teachers misrecognize intensification as professionalism.

However, professionalism in this regard seems also to be problematic in terms of understanding as reported in different studies. For example, Shacklock (1998) explored the notions of professionalism from the perspective of a labor process. He found that teachers associate professionalism with providing care. However, due to their intensified work context where teachers were expected to do more than they were capable of doing, for example more classes, more accountability, more activities and more responsibilities, and the fact that under these pressures teachers focused more on accomplishing their duties, the sense of caring was diminished as a result. Thus, it is possible to state, when the teaching profession is intensified there is a possibility that this can be misinterpreted as professionalism.

One possible solution to decrease intensification is seen by Hargreaves (1994) in providing more time which can be used for preparation and collaboration of teachers. However, his study found that even though providing more preparation time helped some teachers to release stress and improve the quality of their teaching, there were some cases in which such provision of time for mandated collaboration intensified teacher work even more.

To conclude, intensification is caused by differences in time perceptions by administration and teachers. Secondly, intensification is the outcome of increased expectations of the roles and tasks of teachers; and in addition, lack of time. Finally, intensification is often misinterpreted with professionalism.

This section discussed the main barriers which were identified in different literature studies, providing common theoretical background in that area for this study. The next section presents common models of teacher change identified in literature.

Models of Teacher Change

In this section, I discuss various models of the teacher change process from the relevant literature. Three teacher change models are argued in terms of their relevance to understand the case of NIS teacher change.

Concerns-based adoption model. There are different models which illustrate the teacher change process in different studies. However, in the context of teachers who implement innovations and as a result change their conceptual beliefs about teaching and learning, one of the models proposed by Hall & Hord, (2001) and Hord et al. (1987) seem to be the most helpful to explore teacher change process.

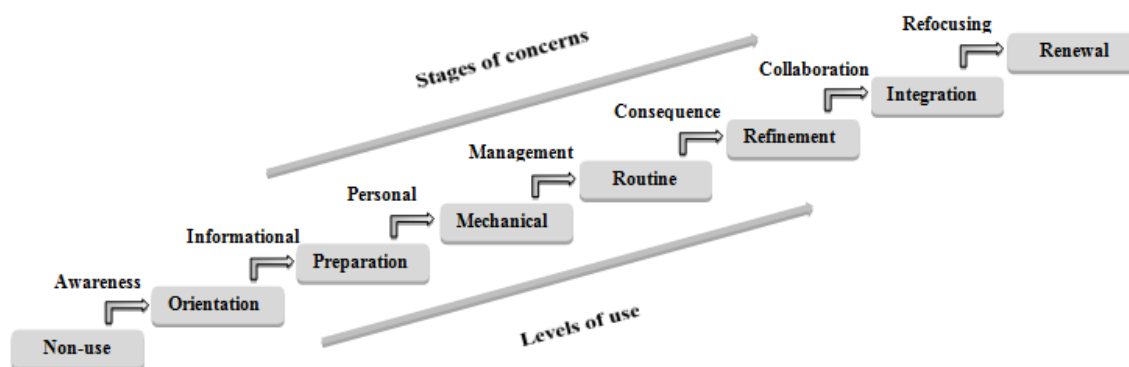
The Concerns-Based Adoption Model (CBAM) is described as the adoption of innovation from the perspectives of eight usage levels (See Figure 1). According to Hall's CBAM, the first level called *non-use* suggests the user shows no interest to an innovation, followed by *orientation* level in which the user expresses interest to learn more about an innovation. The third level of *preparation* is described as the user having definite plans to practice the innovation whereas in the next *mechanical* level the user makes changes to organize an innovation in a better way. As soon as the user improves the innovation he or she presents a pattern of use, which happens in *routine* level. Then, the user is interested in increasing the outcomes during *refinement* level. Afterwards, the user starts looking around trying to coordinate with other people in *integration* level. Finally, in *renewal* level the user tries to find more effective alternatives to the previously established use of the innovation.

Since teacher traditional practices are challenged, they are supposed to go through different concerns. The concept of concern according to Hall & Hord (2001) and Hord et al. (1987) is presented through seven concern stages which are:

1. *Awareness* stage implies that the user is not anxious;

2. In *informational* stage the user shows interest to know more about an innovation;
3. When going through *personal* stage the user is curious about how the innovation is going to affect his or her teaching;
4. *Management* stage of concern involves the user's worries about time needed for preparing resources to implement the innovation;
5. Having *consequence* concern stage the user is anxious about the effect on the learners' outcomes;
6. When the user seeks a link between his or her new practice with the practices of other people the user performs *collaboration* concern;
7. *Refocusing* concern makes the user improve the way the innovation could be organized.

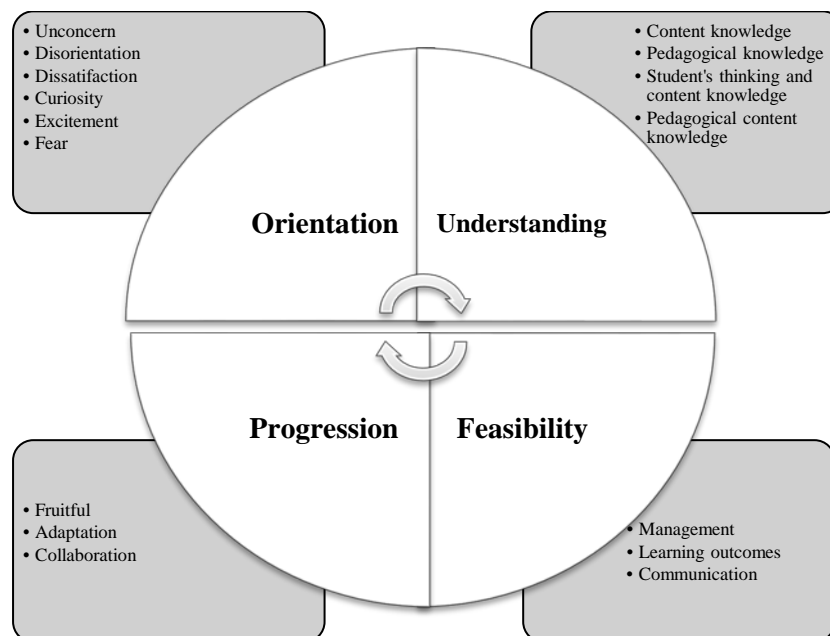
Figure 1. Concerns-Based Adoption Model



Hall & Hord (2001) highlight that CBAM is of great importance when adopting an innovative pedagogy, since it implies helping learners who go through any of seven stages to predict their possible questions and provide appropriate answers. Another point emphasized by the authors is that because implementation can take time, it implies that any concern will also take different time to be solved. Moreover, those who expose teachers to innovations should be aware not only of those concerns but their intensity as well. The idea of concerns intensity and the level of teacher commitment to prior pedagogical conceptions was studied by Molebash and other researchers from the perspective of their influence on how much and how fast a teacher can change. Although Molebash (2010) claims that CBAM is best used to monitor and help people who make an effort to change their beliefs and practices, he proposes another model of conceptual change which I discuss in the next subsection.

Concerns-based conceptual change model. Molebash, Capps, & Glassett (2009) and Molebash (2010) try to combine the theory of conceptual change with CBAM and developed the Concerns-Based Conceptual Model (CBCC). CBCC in comparison with CBAM, has four main stages of concerns that teachers undergo when changing their beliefs and practices which are *orientation*, *understanding*, *feasibility* and *progression* (See Figure 2). Despite the fact that for their CBCC the authors use other terms and less number of stages than for CBAM, CBCC seems to be more reflexive and recursive in nature since its stages are closely related and inform each other. Another feature of CBCC emphasized by the researchers is the idea of describing changes as a continuing part of teacher professional growth. Trying to pursue this point, the researchers refuse to use the term *fruitful* for the final stage which one may find in many conceptual change models. They explain that the term can be understood as the end of the process. The term *progression* in this regard best illustrates the ongoing nature of the process of conceptual change.

Figure 2. Concerns-Based Conceptual Change Model



In addition to the four listed stages, variety of concerns indicators saturate each of those levels. In his description of CBCC, Molebash (2010) states that *orientation* stage is permeated by the following concern indicators:

- *Unconcern* – no concern expressed by teachers at the beginning of the process;
- *Disorientation* – as soon as teachers are introduced and start using a new constructivist approach, they feel disoriented and unclear about the effectiveness of their teaching;
- *Dissatisfaction* - teachers start feeling displeased with their previous, more traditional approach to teaching though it may not mean that the conceptual change is already happening.
- *Curiosity* –being conscious of innovative approaches to teaching teachers show curiosity to learn more.
- *Excitement* –teachers who already think “outside the box” are likely to feel excited to practice new approaches;
- *Fear* – it is natural for teachers to be afraid of failing to create appropriate learning environment for their students because teachers themselves have not experienced learning with constructivist pedagogies.

Understanding stage is related to teachers’ awareness of their need to increase their knowledge in content, pedagogy, children’s thinking and content, and in pedagogical content knowledge as well. The gained knowledge should help teacher learners to not only feel that new approaches are feasible in their own teaching but to evaluate the probable worth of new approaches for their teaching (Molebash, 2010).

There are four concerns that teachers feel when they reach the *feasibility* stage; these are:

- *Management* – teachers are anxious about organizational issues in terms of time they would need to, for example, plan their lessons;
- *Learning outcomes* are the concerns teachers have even if they admit the fact that constructivist pedagogies are more effective from theoretical perspective;
- *Communication* concern occurs when teachers worry about how their colleagues and administration would perceive them teaching using new approaches.

Entering *progression* stage teachers are expected to go through another four concerns which are:

- *Fruitful* concern is lived through as soon as teachers have experienced new approaches successfully;

- Having had success with using new approaches teachers have *adaptation* concern assessing their effectiveness and thinking how to organize their teaching in a better way;
- *Collaboration* concern implies that teachers start collaborating with their colleagues to grow professionally;
- Using approaches with confidence teachers do not stop at this point but they reorient themselves towards new approaches with *orientation* concern.

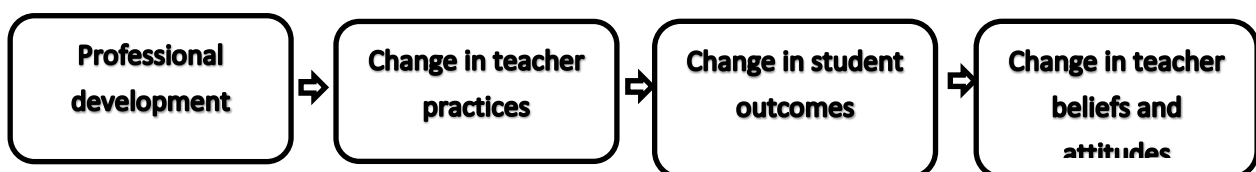
The two models described above can be both utilized to illustrate teacher change process complementing each other. However, it seems CBCC having CBAM as the main base, best reflects the idea of concerns intensity and the level of teacher commitment to prior pedagogical conceptions whereas CBAM focuses on the stages that teacher learners go through with certain concerns.

Both CBAM and CBCC models have several features that best fit the NIS context. First of all, most NIS teachers have experienced traditional pedagogies while being learners themselves in Soviet and Post-Soviet Kazakhstani schools and universities. Thus, it is obvious that they came to NIS with strong traditional preconceptions about teaching and learning. Secondly, NIS teachers are implementing the new student-centered curriculum which strongly implies using constructivist pedagogies. In this context their preconceptions about traditional teaching and their previous teaching instructions are challenged by the new learner-centered curriculum. Finally, they are provided with wide range of professional development opportunities such as trainings, action research, lesson-study, projects on the development of curriculum, assessment and educational resources. It should be noted that NIS professional development events are organized in collaboration with Cambridge University which have constructivist pedagogies as a core of their programmes. Therefore, it is possible to assume that teachers while working in NIS are relearning how to learn in constructivist settings; and since their traditional views on teaching and learning confront with new philosophies they are supposed to go through a wide range of concerns.

Guskey's teacher change model. The model of teacher change by Guskey (2002) represents the sequence in which changes occur as a result of a teacher professional development programme. Guskey (2002) assumes that most professional development programmes aim to bring change in three key areas which are change in teachers' classroom practices, change in their attitudes and beliefs, and change in student learning outcomes. However, he claims that one of the possible reasons why many professional development programmes fail is the process of teacher change, particularly the sequence of change. Thus, Guskey proposes his Model of Teacher Change where significant change in teachers' attitudes and beliefs happens only after they have evidenced the improvement in student learning outcomes using a new approach and consequently teachers change their attitude (See Figure 3).

The model of teacher change by Guskey (2002) can be used in this study because it has some of the elements which are considered for change process of the NIS teachers, for example, professional development, teacher practices, teacher beliefs and student outcomes. However, since the model is linear and focuses on the sequence of changes throughout different elements, in this study it may be used indirectly as an auxiliary model if there is a necessity to trace the sequence of changes. In this case changes may be viewed through the prism of the model by Guskey (2002).

Figure 3. Guskey's Model of Teacher Change



In this section I argued different models of teacher change and justified they may be used in the study. In the next section I present the key points from the reviewed literature in the conceptual framework which will be used when analyzing the data collected for this study.

Conceptual Framework

This section presents the Conceptual Framework which includes the main theoretical concepts from literature review which are organized in a way that illustrates the interconnection between different concepts.

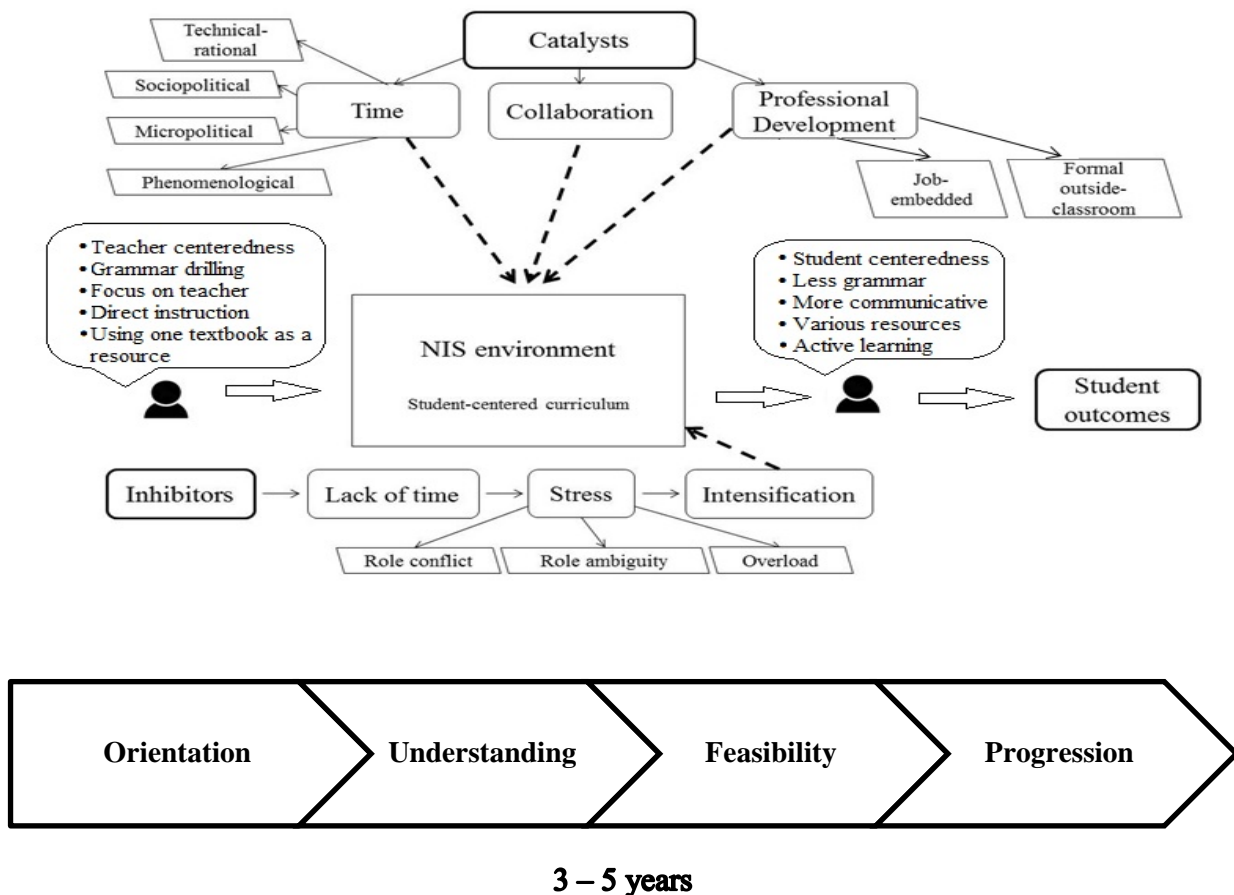
Firstly, the collected data is analyzed through the prism of the Conceptual Framework which represents the key theoretical concepts from the reviewed literature (See Figure 4). The central part of this model refers to the teacher change process in which it is possible to see NIS environment in which student-centered curriculum is implemented by teachers. The upper part of the figure shows the factors that contribute to the teacher change which are collaboration and two forms of professional development: job-embedded and formal outside-classroom. Time is displayed both at the top and the bottom of the figure, because it may both facilitate and hinder the process of change. The factors that impeded the teacher change process are shown just under the teacher change process, and are represented by a lack of time which causes stress. Role conflict, role ambiguity and overload are also depicted at the bottom as three sources of stress which result in intensification of the teaching profession.

Secondly, it should be noted that in the figure, to the left of NIS environment, teacher previous beliefs and practices are represented by teacher centeredness, grammar drilling, focus on the teacher, direct instruction, using one textbook. Accordingly, to the right of NIS environment, changed teacher beliefs and practices are displayed through student centeredness, using a communicative approach, various resources, lesson planning with learner input, and active learning.

Finally, at the bottom of the figure, it is possible to see the stages of concerns according to the CBCC model of teacher change by Molebash et al. (2009). This model is considered as the main basis for identifying the Model of Teacher Change for NIS case because it best

reflects the process of implementing new approaches by teachers, in particular teacher awareness while using new approaches. There is also a notion of the time required for teacher change which according to the discussed literature, indicates that the change process may last about three-five years.

Figure 4. Conceptual Framework



Conclusion

The purpose of this chapter was to provide findings from different studies about teacher change; teacher beliefs and practices, how they are changed; and what enables and hinders those changes. As we could see above, the chapter began with discussions about the concept of teacher change and teacher beliefs and practices from different literature. Then, the different barriers and enablers to reconceptualization were presented. Next, I described the different models of change in teachers' beliefs and practices, followed by the Conceptual Framework.

Chapter 3. Methodology

Introduction

In this chapter I present research methodology and justify my choices for developing a qualitative, interview-based study. In the first section, I provide a justification of the research design used in this study, followed by a description of the research sampling procedures and the sample in the second section. In the third section I illustrate research methods for the current study. The fourth section contains a justification of the data analyses approach and, finally, the ethical considerations of the study are presented in the last section.

Research Design

In this section I present the research design of the study which used a qualitative research approach described by Creswell (2014) as an investigation approach used to examine and understand a central phenomenon. Case study was employed within a qualitative research approach for my study because it allowed me to understand in-depth how NIS teacher beliefs and practices have changed as a result of working in NIS schools. There were two main reasons why case study was chosen for this study. Firstly, Merriam (1998) claims that if a researcher explores a process, case study is a critically useful; and in my study I was interested in understanding the process of teacher change. Secondly, according to Yin (1994) case study is the best choice for research design when researchers ask how and why questions in their research. In this term, one of the main questions in this study focuses on how teachers' beliefs and practices have changed. Thus, it can be concluded that case study was chosen for this study since the researcher was interested in the process of teacher change which was expressed with how-question.

Semi-structured interviews were used as a qualitative instrument for the study since they are more flexible in terms of how and when an interviewer asks questions and they

provide more freedom for interviewees to answer using their own language (Edwards & Holland, 2013). This study did not employ any other instruments except semi-structured interviews for a certain reason. Since working in the Centre for Educational Programmes (CEP) I have been in charge of implementing the newly developed NIS curriculum for English. Together with my CEP colleagues, we annually conduct monitoring visits to NIS schools where we collect data using focus groups with school administration, teachers, students, parents; lesson observations, and document study. Though the aim of such visits is to understand the process of curriculum implementation and identify the positive and negative aspects of the new curriculum in order to make necessary changes to it, there is still a certain anxiety and discomfort in some NIS schools during the mentioned above visits.

Therefore, I did not want NIS teachers to associate me as a CEP person but rather as their former colleague, one of NIS English teachers and a researcher who is interested in their self-reflections about their experiences in NIS setting. As a result, there is a certain risk that the findings of the research may not be convincing enough due to using only one instrument. However, I made this choice in favor of providing trust and comfortable atmosphere for my participants so that to gain in-depth teachers self-reflections for this case study.

Research Site and Sampling

In this section I present research site for my study as well as the procedure of choosing the participants for the study. A short background information about the participants is also be provided in this section.

The study employed purposeful sampling to explore how NIS teacher beliefs and practices have changed while working in an NIS school. According to Creswell (2014) in purposeful sampling individuals and sites are selected by researchers intentionally to learn about or understand the central phenomenon in-depth. The purposeful sampling in this study

was useful because it allowed investigating the central phenomenon of teacher change more deeply. The research site for the study was one of NIS schools.

According to Patton (as cited in Creswell, 2014) purposeful sampling is used by researchers who choose participants and sites depending on whether they are “information rich” (p. 169). So, four NIS teachers were recruited for the research using purposeful sampling. I selected the teachers who had no less than three year experience of working in NIS school because this helped to compare their previous beliefs and practices with the current ones.

Before selecting the participants, I talked to the Acting School Principal who was the Gatekeeper of the site at that time. I explained the purpose and the procedures of my study including the ethical considerations. When I received his permission, I met and talked to several teachers in different places inside school: school canteen, library, corridors; introducing my research and inviting them to participate in it. Four teachers were interested in my research and agreed to become my participants. The participants were made familiar with the informed Consent Forms which were signed by me and them. Every participant received a hard copy of the signed Consent Form, which is provided in Appendix A.

The selected participants of the study are four teachers of English. As stated above, the main criterion for the selection of participants was their experience in NIS which should be a minimum of three years. I also tried to include teachers with a range of years of experience. Therefore, participants represent both a younger generation of teachers (Participants 2 and 4) and more experienced teachers (Participants 1 and 3).

The following table presents the detailed background information about the participants of the study.

Table 1

Participants of the study

Pseudonyms	Total years of experience	Years of experience in NIS	Subject taught
1	20	4	English
2	4	4	English
3	27	5	English
4	10	4	English

Research Methods

In this section I describe and justify my research methods used to collect data for my study. The process of planning, piloting and actual conducting of interviews is presented in this section as well.

As described above, this is an interview-based study in which I conducted face-to-face semi-structured interviews of four NIS teachers who had no less than three year experience of working in NIS. I used two cycles of semi-structured interviews because the first cycle of interviews raised new follow-up questions and the researcher needed more explanations and details to answer the research questions.

First, I developed a research problem and a research purpose intended to address the problem. Then, the research questions were formed to achieve that purpose. The research questions were followed by developing a data collection instrument which would help to answer my research questions. I developed a protocol with 10 interview questions (Appendix B) and as soon as the protocol was approved by my supervisor, pilot interviews with two people were conducted to check the accuracy and timing. I piloted my interviews with my two colleagues from Centre for Educational Programmes who used to be teachers in NIS schools. They were asked how their beliefs and practices changed while they were working in NIS. I also asked them to provide some examples of aspects of teaching that had changed much. I received quite informative answers which partially answered my research questions. During

piloting interviews I noticed that some answers of the participants raised new questions to clarify some details. I understood that interviews could take more than 30 minutes. I transferred some questions for my second cycle of interviews through which I planned to receive more detailed information. Therefore, the first cycle of interviews provided me with more broad preliminary data while the second cycle of interviews helped to get more in-depth information.

Each interview with real participants lasted about 30 minutes and began with the researcher's explanations of the study, its procedure and ethics. The signing off of the Consent Forms and providing a copy to each participant preceded the actual interview.

All interviews were conducted in a comfortable and friendly atmosphere inside the school, except one interview that was conducted in a coffee house because one of my participants wished to be interviewed outside the school.

The second cycle of interviews was conducted two years later due to my academic leave. Therefore, at the beginning of the interviews in the second cycle, I had to remind my participants about the general information about my research.

As it was mentioned above, semi-structured interviews were used in this study since they provide more freedom for a researcher to ask follow-up questions so that to get better in-depth understanding of the phenomenon. During the second cycle of interviews I tried to get some details on the process of changes in beliefs and practice including teacher concerns while they were going through the process of change. I received a new portion of informative data from my participants. I was very grateful for their agreement to continue their participation in my research and I presented some sweets and presents to every participant to express my gratitude.

Data Analyses Approach

In the section above, I described the methods I used to collect data. In this section, I present the process of data analyses.

The first five 30-minute interviews were recorded on my voice-recorder which was installed into my mobile phone. I uploaded the audio recordings into my laptop and transcribed each of the interviews. Once transcribed, I read through each transcript to get a sense of the overall information which Merriam and Tisdell (2016) describe as “making sense out of data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read” (p. 202). Then, I began a coding process using an open coding strategy which is described by Strauss and Corbin (1990) as the process where researchers categorize different concepts with their different dimensions. After labelling the chunks of transcribed text, I had a quite large number of codes which addressed different topics. Mills, Durepos & Wiebe (2010) claim that “often the process of open coding produces many concepts that can subsequently be grouped into categories based on something they have in common” (p. 2). Therefore, I start combining certain codes into broader themes and at this stage, putting all codes and themes into Coding Schema was useful since this helped me to organize the codes and themes according to their relationship and interrelationship, and their relevance to my research questions.

Thus, the axial coding strategy was used which is defined by Strauss and Corbin (1990) as “the process of relating categories to their subcategories” (p. 3). The relationship between the broader themes was analysed, which followed by grouping them into four major categories which were derived from the research questions: changes in beliefs and practices, catalysts and inhibitors of changes, and phases of changes. The first category is related to the first research question about changes in beliefs and practices. The second and third categories are linked to the research question about the catalysts and barriers to the reconceptualization of teacher

beliefs and practices; and finally, the fourth category describes phases of change process which is related to the research question about the reconceptualization process and its phases. The described above categories and codes are presented in Coding Schema (see Appendix C).

According to Creswell (2014), a qualitative research implies that data collection and analysis processes occur simultaneously. Indeed, the initial process of data analyses started while collecting the data. Moreover, I revisited constantly the interview data from the two cycles of interview while analyzing the collected data.

Ethical Considerations

In this section, I present ethical considerations of the study describing the process of providing anonymity and confidentiality of the participants and the data collected.

Once I developed the proposal for my research, I used that information to prepare the NUGSE Ethics Form (see p. iii). On this form, I described the purpose of the research, the research problem and the research questions; and research instruments as well. I also provided information on protecting the anonymity and confidentiality of participants of the research. This research was granted an approval from NUGSE Research Committee on March 17, 2014.

My Consent Form contained the purpose of the study, the benefits of participation in the study, methods of the study, interview timing, guarantee of confidentiality; and contacts of the researcher and her supervisor. The Consent Form was approved by the supervisor before the actual interviews. After my participants showed interest in my research, we agreed on a time and a site with each participant. I developed the schedule where I completed their names, contacts, date, time and location of the interviews, which helped me to manage my time and make changes if necessary.

Every interview of the first cycle started with the expression of my gratitude for taking time to participate, explanation on the protection of participants' names and data. At the beginning of interview of the second cycle I also reminded my participants about the anonymity and confidentiality of their names and data. This helped me to gain trust from my participants. Every participant received a hard copy with my and participant's signatures. The files with transcribed interviews and audio files were coded with numbers which I gave to every participant.

To ensure confidentiality of the data and minimize the possibility that participants' identity and their specific school could be revealed, I encoded the names of my participants through assigning a special number for each participant (for example, Teacher 1, Teacher 2, etc...); and the decoding of the numbers is known by me only. Moreover, I did not mention the location of the NIS school in any part of my thesis. Furthermore, I destroyed the mentioned above schedule for interviews with participants' names and contacts. All the data were kept in my laptop which was protected with a password. I deleted all the audio data as soon as I had finished data analysis and reported the findings of the current research.

Conclusion

In this chapter I provided information on the research methodology, including the choice of research design, sampling, instruments, the process of data collection, and analyses. I tried to explain and justify my choices using different literature. Finally, the ethical considerations and the procedures of ensuring anonymity were described. All information described in the current chapter has formed the basis of the discussion in the next chapter, Data Analysis & Findings.

Chapter 4. Data Analysis and Findings

Introduction

This chapter presents the key findings obtained from seven in-depth interviews conducted with four participants of the study. The participants of the study included four English teachers whose work experiences vary from six to twenty-five years and from four to six years of working in the NIS school. The study aims to explore how NIS teachers changed their beliefs and practices from the time when they started working at NIS; what enabled and impeded those changes; and finally, what phases that process included.

Changes in Beliefs and Practices

This section describes changes in beliefs and practices which four teacher participants experienced while they worked in one of NIS school.

The first aspect of teaching mentioned by all teachers as the most changed over their professional career at the NIS school was their shift from teacher centeredness to student-centeredness. All teachers mentioned that while planning their lessons they pay attention to their students' needs and interests and try to choose the materials accordingly. Teacher 4 said in this regard that "having students' interests at the corner" she would not teach "something unreal taken from a book" but rather "something related to their everyday life and their teenager problems".

In these terms, it is noteworthy to point out that all teachers have become more flexible in terms of changing something that does not work appropriately during their lessons. Teacher 3 stated that the materials she prepares for her students sometimes become "uninteresting for them because they already know this". In these situations, she "changes the activities or questions within the same topic trying to go deeper". Teacher 2 noted, "I start feeling my

students because I am getting more flexible to changes, I begin to adapt to my students, hear their voice and their wish, to verify tasks to raise their interest”. Teacher 4 also confirmed this by saying, “I do not always follow my lesson plan. Sometimes I change it and then even more creativity happens. I have become flexible enough in these terms”.

The second aspect mentioned by all teachers in terms of changes was the shift from a grammar and memorization approach to a communicative and constructivist approaches. All teachers mentioned using the communicative approach, active learning, scaffolding and differentiation during their lessons. The changes in practice mentioned by the teachers related to providing students opportunity to construct their own knowledge and understanding through different student-centered approaches instead of memorization of new vocabulary and grammar rules. Teacher 4 maintained this by saying that today her “view on methodology of teaching has been totally changed” since she prefers “to use various approaches like communicative one”. Moreover, Teacher 1 stated that now she presents “new vocabulary through providing definitions, examples, pictures, and context so that students find the meaning for themselves”.

The third aspect of teaching that has been changed significantly is the shift from lesson planning without learners’ input to lesson planning with learners’ input. Before introducing any new content, the teachers tap their students’ background knowledge to understand what they already know and what they need to know. Moreover, all teachers are concerned about how this or that activity may contribute to student learning and development while planning their lessons. Speaking about planning her lessons, Teacher 3 stated,

I keep in mind what to start my lesson with, what will be achieved by the end and finally, what students’ outcomes will be. I try to decide whether this or that is worth using or maybe waste of time... whether this will really affect my students’ outcomes.

Yes, lesson planning is what I changed. I plan not for the sake of planning or to write it

smoothly and show it to somebody. No. I treat *the lesson planning as my working instrument* and for *students there should be something they can use in their real life*.

Overall, it is possible to conclude that the major changes occurred in teacher beliefs and practices from teacher centeredness to student centeredness; from a grammar and memorization approach to the communicative approach; from direct transmission view of learning to constructivist; from lesson planning without learners' input to planning more structured and targeted lessons with learners' input.

Catalysts of Changes

Reflecting on their change process, the teachers were asked what facilitated the changes which they had mentioned. In this section the factors that enabled the teachers to change their beliefs and practices are presented.

Collaboration. When asked about the enhancers of teacher change, all teachers indicated collaboration as the main factor that supported them in the change process. According to teacher reflections, collaboration presented itself in different forms such as joint planning, coaching and team-teaching, promoted significant collegial support and teacher change.

Joint planning. All teachers mentioned joint planning as the first source of collegial support. The teachers value this form of collaboration since it allowed them to learn new approaches from each other inside their department and saves these teachers' time as well. One of the teachers described joint planning as follows,

...in our department we have joint planning. We get together and brainstorm our ideas, discuss them agreeing or objecting. Then, we appoint two teachers who plan five lessons for the whole week. This is very convenient. For me, it is very useful to have some core pieces of lessons which I may complete or change slightly (Teacher 2).

Interestingly, when the teachers were asked about the origin of joint planning, in particular how and by whom it was initiated or imposed, two teachers mentioned that the joint planning was not a top-down initiative but they were using it from the beginning of their professional career at the NIS school. Teacher 1 maintained,

It is our, teachers' decision. I remember using it from the very beginning of my working here, in primary school. We planned together. You know ... because we were not experienced enough and we were seeking help from each other. Consequently, we built a team; we helped each other and planned together. It is not the initiative from the top, but it is our initiative that was the first. It was later when our administration told us to plan jointly because since according to the new curriculum, teachers use various resources rather than a single textbook, teachers were recommended to co-plan their lessons to have a kind of unity. However, initially we, teachers, needed help from each other.

Coaching and team-teaching. Another form of collaboration that was described by all teachers as critical in terms of enabling teacher professional growth was coaching and team-teaching with international teachers. In this regard, it should be noted that in 2013 many international teachers were recruited to NIS schools to support NIS teachers in implementing the new learner-centered curriculum which facilitated teachers to use different modern teaching principles and approaches. Through coaching and team-teaching, the local English teachers were supported by their international colleagues in teaching both English and a totally new subject Global Perspectives and Project Work (GPPW), which was introduced to NIS schools as one of the new subjects to develop student research skills.

Interestingly, because the language of instruction for GPPW is English, it was imposed to teach on many local English teachers despite the fact that some of these teachers lacked the necessary content knowledge and research skills. Describing their roles in coaching and team-teaching, the English teachers maintained that at the beginning the local teachers “were just

listeners while international teachers were their coaches”. One of the teachers (Teacher 3) pointed out that,

...the local teachers agreed to such role because GPPW *was a new unknown subject*. We tried *to absorb everything*. I remember when my three international colleagues at school explained me how to teach GPPW, it was as if they spoke *Japanese to me*, I did not understand them at all! Everything was unknown: how to conduct research, those absolutely new terms. I started to understand little by little...

Another aspect highlighted by the teachers is that they learn better through collaborative activities. Teacher 3 specified that she learns better in collaboration, for example, when she and her colleagues read or use something new and share this with other teachers.

However, it seems that much collaboration occurs within the English department rather than with other departments. All teachers mentioned several collaborating and sharing initiatives organized by school administration previously. However, these initiatives lasted no more than a year and were stopped because of some reasons which were unclear for these teachers. However, the teachers showed a more positive than pessimistic attitude to collaboration outside their department.

Thus, it is possible to conclude that there is a strong collaborative culture inside the department which provides teachers with opportunities to learn from each other. Moreover, collaboration helped those teachers not only in acquiring and practicing new approaches, new subject and research skills but to become effective collaborators as well.

In-service professional development. In their reflections about catalysts of change, all teachers pointed out that it was formal professional development courses, training, and seminars provided within and outside their school that have contributed significantly to their professional growth.

Sharing seminars. For example, weekly seminars to share experiences organized within their English department were mentioned as the most useful in helping teachers to learn new teaching approaches. This weekly organized seminar sharing seems to have become the systematic professional development event which is valued and supported by the English teachers. Moreover, the seminars within the English department were described as being useful for novice teachers in terms of introducing the new integrated educational programme and criteria-based assessment. Teacher 4 emphasized,

Mostly those are events *within our* department. *We do not go abroad to learn* some new skills. This really happens in our department. Maybe, it is *not so visible* for other people but *we ourselves organize* different seminars, for example once a week we do seminar on the new curricula and criteria-based assessment. We also do this for *novice teachers*. I really like the fact that we *grow professionally within our* department.

Three-level programme by Center of Excellence and Cambridge University. Another in-service professional development course mentioned in terms of providing teachers with theoretical and practical knowledge and skills in teaching and learning is a three-level programme of professional development organized by the Centre of Excellence (CoE), a branch of the Autonomous Education Organisation ‘Nazarbayev Intellectual Schools’, and the Faculty of Education, University of Cambridge. The completion of the third level of the programme provides teachers with theoretical and practical knowledge of new methodologies and techniques; after completion of the second level teachers become mentors who train their colleagues in their schools; and finally, having achieved the first level teachers introduce and implement the new approaches within their school communities. Two NIS teachers mentioned that it was after participation in the third level of the CoE programme, that they started to plan their lessons consciously and think about specific objectives or outcomes for their students. Teacher 3 was overwhelmed by the fact that NIS teachers were provided with all these in-

service professional development courses and training with international trainers, since in the past she used to find professional development training on her own,

In the NIS school *I get all that learning in my working place* even without thinking about it! Our school provides many seminars and trainings on new technologies which are organized on a high level with Cambridge trainers.

Along with the above-mentioned programme, teachers also noted that the participation in action research and lesson study projects were also beneficial in terms of obtaining content knowledge and practical skills in using new methodologies and techniques.

Inhibitors of Changes

Describing their change process, the participants were asked about the challenges that they had faced during the change process. This section reveals the main inhibitors that impeded the change process.

Intensification of the teaching profession. The study showed that, there were some internal and external factors which impeded the process of teacher change significantly.

Lack of continuity in teaching English and GPPW. Reflecting on challenges in the change process, all teachers mentioned that some decisions that came from the school administration confronted their real professional needs and did not contribute but rather imposed significant constraints to teacher professional change. For example, Teacher 3 was appointed to teach GPPW one year, then, the next year she was told to teach English, then the third year she was again “thrown back” to GPPW. Such school management was perceived as irrational and resulted in this teacher being deprived of the time and space to adapt and improve her teaching practices in a completely new subject. The one year gap of teaching

GPPW is mentioned by that teacher as a significant loss in terms of her developing skills and content knowledge in that particular subject. She maintained this by saying,

It took so much time, energy and even health to understand this new subject but I lost one year. And when, next year I was again asked to teach GPPW I agreed with pleasure but every day I still feel that one year lost time. Interestingly, a foreign teacher told me that in their school a teacher cannot be thrown from, for example, from secondary to high school without special preparation. But here, we are thrown easily. I think it is very stressful and you really lose some precious time to develop further in certain area. At least this should not be done every year. There should be some continuity when a teacher can follow some sequence.

Lack of continuity in teaching in levels of schooling. Another inhibitor of change is related to the fact that every year teachers may be appointed to teach in different levels of schooling: primary (Grades 1-5), secondary (Grades 6-10) and high school (Grades 11-12). This decision may be explained by staffing issues when school administration has to distribute teaching hours among teachers or there is a deficit of staff. Another explanation of such decisions may relate to the intention of school administration to help teachers better understand the integrity of the curriculum than they would if they taught at only one level of the school system. Nevertheless, such decisions were mentioned by Teacher 4 as “causing additional stress to already existing stress from implementing the new methodologies and the new curriculum”.

Paperwork, red-tape and urgency. Reflecting on the inhibitors of change, all teachers mentioned that distractions related to excessive paperwork, red-tape and urgency made it difficult to focus on improving their teaching and learning. For example, Teacher 1 mentioned

that when “different centers and departments demand different things”, it takes teacher time which “could be more devoted to their students”. Teacher 2 expressed this by saying,

Constant reports, massive paper work and everything should be done in a short time. You are doing your work when suddenly another work distracts you... it may be a translation or a report whose deadline was yesterday... it is still happening... Unreal deadlines knock down not only morally but physically also because I have to work extra hours. Besides I have to check a lot of student written papers and I want to give meaningful feedback. I often need to stay up till 3-4 am.

It should be mentioned that because the implementation of innovations is a complex and stressful process in which teachers play a critical role, it is possible to assume that teacher work is already intensified by the need to learn and work simultaneously, which in turn takes more energy and time. In this case, it is quite obvious that any intervention that hinders the process of adopting new teaching practices is perceived by teachers quite negatively. All the above-mentioned challenges may lead to teacher emotional exhaustion and burnout which was mentioned by two teachers in the interviews as follows,

Teachers are very tired. They are burning out. Many teachers told that their emotions have burned out. Most teachers just work without any emotions. The same with me, no emotions. If it is required something, I just do without any emotions. Sometimes we are told off for not being creative. But people do not want to work creatively. No energy. It is enough just to conduct your lessons but I cannot say that I am inspired or enthusiastic... (Teacher 1)

However, most teachers admitted that they have become more self-organized, stress resistant, mobile and flexible which helps them to overcome the challenges and keep their work-life balance. Teacher 3 confirmed this by saying, “Now we also have stress but I think we

get used to it. Or maybe we have learned to organize our work in a way so that to escape this stress. Or we treat stress differently from a psychological aspect”.

To conclude, it is possible to assume that despite the fact that the participants have developed stress-resistance, mobility and flexibility; the intensification of their teaching profession deprive the teachers of time and space to adapt and improve their teaching practices, which in its turn causes stress and emotional exhaustion.

Prior beliefs and practices. Speaking about changes, three more experienced teachers admitted that before they started to teach in the NIS school, their beliefs and practices had been teacher-centered. As they explained, teacher centeredness was displayed by the central role of the teacher, when classroom activities were centered on teachers who provided necessary information while students listened in a receptive and passive way. In their reflections about the previous experiences of being taught in schools and universities, three more experienced teachers mentioned that “the teacher was always at the center of teaching and learning” (Teacher 1); they believed that “what teachers did was always right” (Teacher 3) and there should not be any criticism from the side of students.

Moreover, looking back at their previous teaching, three more experienced teachers referred to their previous lessons as focusing more on “teaching grammar and developing students’ receptive skills (reading and listening) rather than using the communicative approach and developing productive skills (speaking and writing)”. Teacher 4 explained that she taught the way she was taught as a student in the university, saying,

When I worked in other schools and university I believed that the most important thing in teaching is *grammar*. I am ashamed today to say that I mostly used to teach *only through grammar rules and learning by heart (memorizing)*. I taught the same way I was taught at school and university.

Finally, three more experienced teachers noted that the lessons were “much easier” since they “just used to write the words on the board and students used to rewrite them while teachers provided ready translations of the words” (Teacher 1). In their lesson planning, they just tried to “follow the certain scheme which implied beginning, main part and end of a lesson” (Teacher 3). They “did not really think how the activities would affect students and what aims could be achieved” (Teacher 3). It is obvious the teachers referred to direct transmission view of student learning when teachers used to prepare their lessons without learners’ input. Moreover, since the same standard curriculum was used across all schools in Kazakhstan, the teachers mentioned that they often duplicated their previously used lesson plans from year to year without considering the particular abilities or interests of their students who were in the class this or that particular year. Similarly, the teachers admitted that, they “used to plan lessons the way they were taught in the university while they were students” (Teacher 3).

Overall, on the one hand, previous teacher-centered beliefs and practices were a kind of starting point of the process of change because those prior beliefs and practices confronted the teaching practices that were expected from NIS teachers according to the NIS learner-centered curriculum. On the other hand, previous teacher-centered beliefs and practices hampered the process of change due to the fact that they had been formed during their previous teacher-centered experiences before they came to the NIS school.

Change Process and its Phases

From the teacher descriptions of their professional growth it can be argued that the change process was not flat and smooth but rather it was bumpy in some places and was saturated with different emotions and feelings that those teachers experienced at certain stages. For example, negative emotions caused by dissatisfaction with one’s own teaching at the

beginning of their professional career at the NIS school were replaced by the excitement when the teachers became acquainted with new approaches during in-service professional development activities and at the same time the teacher expressed anxiety on how to adopt those new approaches and what impact the new practices could have on their students' outcomes. Thus, it is possible to assume that the change process for those teachers was complex and dynamic with its rises and falls. Teacher 2 described her current state in the professional journey as follows,

I think I am in my decline now because I feel I am on the bottom, I mean I am tired.

However, I understand that this bottom is the place where I will lie for a while and then I will push against this bottom and will swim out. This is how I feel. I was going higher and higher, then I went down and now I need to stand up and move on.

Crisis. It should be noted that all teachers acknowledged that at the beginning of their career at NIS they experienced a certain crisis triggered by the contradictions between their previous teacher-centered experiences and the new NIS educational environment which requires its teachers to use new methodologies and techniques. In these terms, it is necessary to point out that since three more experienced teachers started their practices based on their teacher-centered beliefs, they faced a certain rejection from the side of students which in turn made those teachers feel disappointment, discomfort, stress, and low self-esteem. Teacher 4 expressed this by saying,

“There was a crisis at the beginning during the first year of working here. I remember myself having locked alone in my classroom and not willing to see anybody...”

Those three teachers maintained that they understood that they needed to change their practices from the first year at the NIS school. Thus, these contradictions or conflicts can be identified as a starting point of the process of teacher change in beliefs and practices, which

pushed the teachers to change their teaching practices. In this light, it is possible to assert that *crisis* can be identified as the first phase of teacher change process. Teacher 1 maintained this,

It took about 2 months to understand that those teacher-centered lessons would not work here. I needed to change something to involve my students, some new activities. Moreover, I was teaching in primary school in NIS at the beginning. I needed to turn the things upside down. Yeah, I understood this at the beginning ... in the first half-year.

Learning. When the teachers were asked how they managed to overcome the crisis at the beginning of their professional career, they all claimed that it was learning that helped them to change their beliefs and practices. According to teacher reflections about learning, all teachers stated that they learned mostly through participating in different activities within and outside their school context, and within their classrooms as well. It is obvious that by learning they also meant learning from each other and international teachers. Thus, *learning* can be identified as the next stage of teacher journey. It should be noted that if the *crisis* phase was accompanied by a decrease in self-esteem and motivation, then during the *learning* phase, the teachers revealed more positive emotions. Three teachers claimed that they felt excited and curious about the new approaches. Teacher 3 maintained,

I was really interested because everything was new. I felt that before I was stuck at one point and when I started to learn new things from my colleagues and from seminars, it was a kind of delight, you know. It was something different and exciting! However, at the same time I was anxious asking myself, "How is it possible that I have worked so many years and have no ideas about these things?"

However, all participants emphasized the point that they need to learn continuously since what they have "gained is only 30% of what it is needed..." (Teacher 1). Moreover, all

teachers acknowledged that the more knowledge they acquire, the more knowledge they understand they need. In this regard, most teachers mentioned that they try to read more about new methodologies. Teacher 3 said,

I know that I do not know anything. That is you need to learn every day. Now it does not hurt any more. I understand that it is natural to not know something. A teacher even can learn from students. I really learn a lot from my colleagues and students.

Trying. Participants were asked how they applied the new ideas which they had learned from different learning activities. All teachers stated that having become acquainted with the new approaches they tried them in their classrooms. However, most teachers acknowledged that they did not always practice the new approaches immediately when they came back to their classrooms from professional development activities. They mentioned that it took some time before they actually tried the new approaches in their classrooms and they provided some explanations for this. First of all, the teachers mentioned that it was difficult to put the new approach into practice because they were not sure how this or that approach would fit their practices. Another reason was that the teachers coming back to their classroom routines could just forget the new information or may have used the new ideas episodically, or just postpone using them. For example, Teacher 3 mentioned,

However, even today I cannot say that everything works well with me. Things from theory sometimes *don't work in my practice*. Sometimes I *forget* new things from seminars and courses. Sometimes I use something new and *drop* it till next year when I suddenly recall it.

It should be noted that as soon as the teachers start using the new ideas which can be identified as *trying* phase, they may be frustrated by the organizational issues because it may take more time to prepare their lessons. In this regard, joint planning seems to be helpful in

terms of pushing teachers to use the new ideas and at the same time help them with lesson preparation.

Adopting and adapting. Participants admitted that not every new approach or strategy learned may be applied in their classroom or applied in the same way as they had been presented at training and workshops. Most teachers maintained that when they tried to actively use new ideas during their lessons, other important aspects of teaching and learning could easily be neglected. Consequently, the teachers tried to adopt and adapt the new approaches to their practices according to their students' needs and their own teaching style. Teacher 1 said in this regard,

I have *adapted* it (active learning). To be precise, I *use mixture of new and old*. It was in the center of my professional career when I *used only new Active learning* activities. Then later I understood that *not everything works with my students*. So, today I may say that I *combine old and new*.

Another important point highlighted by Teacher 3 is that some new ideas being routinized in their classrooms may lose their meaningfulness and become superficial. As an example, Teacher 3 explained her experience of using students' reflections as one of the new ideas to which she was introduced during a teacher professional development course. She asked her students to write their reflections from lesson to lesson. Later, she found that students started to perceive the process of writing reflections as a kind of formality at the end of every lesson because their written reflections looked as if they were written in a form of template using the same common phrases. As a result, to make her students write more meaningful reflections, that teacher decided that her students should write their reflections once a week rather than every lesson. Thus, it can be assumed that before the new idea becomes a common practice, its use may vary depending on the context. Hence, *adopting and adapting* can be

identified as the next phase in the teacher change process. Teacher 3 supported this point by saying,

... Theory is just theory. *You need to understand how this will work in your classroom. I try to adopt any new knowledge to my teaching.* For example, let's take reflections of students which they wrote at the end of every lesson. When I read them, they were not what I expected them to be. I mean, sometimes *they wrote automatically as if through templates.* I decided that they should write reflections only once a week but more meaningfully and specific. So, this is what I still struggle with and need to work out.

Overall, it is possible to conclude that the process of change in beliefs and practices for four NIS teachers was complex and dynamic. Four NIS teachers have gone through the following phases: crisis, learning, trying, adopting and adapting.

It should be noted that when reflecting on changed practices, all participants mentioned that they could see the improved student outcomes only over time. Teacher 1 maintained this, saying, "... *this does not happen at once*, you know. For example, I started teaching in grade 9 but I could see the student outcomes only *after two years*". All participants stated that their students have developed high levels in speaking, writing as well as critical thinking and research skills. Moreover, all teachers link the improved outcomes of their students with their changed teaching practices. Addressing this, Teacher 3 said,

The outcomes have been improved. However, one may say that this is not due to my changed lesson planning. But *I think the way I plan lessons had an impact on students' learning* because *my students understand the aims and how they are expected to achieve them.* Because of *my changed lesson planning, my instructions became clearer.* *Students also understand time frames,* I mean, when they are told that they have 10 minutes they try to meet that time. *They work more productively.*

Another thing is that because this happens from lesson to lesson, I mean systematically, *they also know and understand the process of learning and the stages of lesson*. They know that after being introduced new words, they will work with definitions, then they will read texts and use the words in oral speech. *They understand that scheme of learning and this really helps them*.

Moreover, student outcomes seemed to motivate the teachers and increased their self-esteem and confidence. Inspired by the achievements of their students, it is evident that the teachers started to appreciate the benefits of innovations being implemented in their school, which made their efforts to improve teaching and learning more meaningful. It should be noted that teacher reflections about their student outcomes were the most emotionally positive part of the interviews. What is more important is that not only teachers saw the advantages of changed teaching and learning but their students understood the benefits of new subjects; and new approaches used by their teachers. For example, speaking about the new subject Global Perspectives and Project Work (GPPW), Teacher 2 shared,

I really like that through GPPW students can choose their narrow topic out from broader ones and then develop it. I also like the fact that *integration really happens*, that is, the knowledge obtained in Physics, Chemistry, Biology is easily applied in GPPW; and vice versa the research skills they have learned in GPPW may be applied in other subjects. One student of mine recently has said, "*GPPW really helps me because I began to write better projects in Physics and Biology*." I was very pleased to hear this.

Another important outcome is that students have learned to use English for communication in real life. They are aware of appropriate styles and conventions in communication with different people. In this regard, it is impossible to neglect the short story shared by Teacher 2 which demonstrates the outcome stated above,

Once we read an article on the topic of student anxiety and fear of exams. Then I asked my students to write a review for that article and send their reviews to the author of the article. *My students were shocked* because the journal where the article was taken from, was outdated. However, one of my students wrote to this author. She managed to find him in the Internet through about 10 mediators, then she sent her written review; and surprisingly she got his answer! I asked that girl to read the letter with the answer in front of the class. This author was amazed to find that in Kazakhstan this student could write such an argumentative review on his article which he had written about 5 years ago. This girl had the same problem related to anxiety before exams; and since this author is a psychologist expert, she decided to write to him. *This was something!* The students *got very excited!* They kept saying that *English was so cool!* I felt that *something significant was happening in that girl's life.* I think I revealed something in that girl. *I believed in her.* This moment was also very important for me. It was *the highest level of trust.* This girl then always came to me, shared her secrets and problems. Now she is a student at Nazarbayev University, she is among outstanding students at the university. You know I think *we adopted to each other* I mean those students and me.

Finally, it is possible to state that once these teachers saw the improvement of their students' outcomes, it is possible to assume that they started to perceive the new approaches positively and consequently, changed their beliefs. To conclude, NIS students' outcomes can be regarded as the outcomes of teacher changed practices. Moreover, the NIS student outcomes anticipated the changes in teacher beliefs. However, the improved student outcomes became apparent for those teachers only over two or three years.

Summary of Findings

In the previous sections I presented the analyzed data obtained from seven interviews with four NIS teachers. This section reveals the summarized findings emerged from the data:

1. Most teachers described the major changes as shifts from teacher centeredness to student centeredness; from grammar and memorization approach to the communicative approach; from direct transmission view of learning to constructivist; from lesson planning without learners' input to planning more structured and targeted lessons with learners' input.
2. A collaborative culture within their department provided all teachers with the opportunities to learn new approaches, new subject and research skills from each other and international teachers; and helped these teachers to become effective collaborators. Collaboration was mentioned by all participants as performed mostly within their department through joint planning, coaching and team-teaching. Moreover, since joint planning was established by the teachers, the teachers participate in this form of collaboration voluntarily.
3. All teachers obtained knowledge on new student-centered methodologies and techniques through participation in the following in-service professional development activities: firstly, sharing seminars within the English department; secondly, the third level of teacher training course with trainers from Cambridge University provided by Centre of Excellence outside their school; and finally, lesson study and action research projects.
4. Intensification of the teaching profession triggered by managerial and administrative issues, paperwork, red-tape, and urgency were mentioned by all teachers as critical impediments which deprived participants of time and demotivated the teachers to adopt

new approaches. Moreover, three teachers mentioned that they experience stress and lack of motivation when they face the above described challenges and consequently, this leads to teacher emotional exhaustion and burnout.

5. The deeply-rooted prior beliefs and practices about teaching and learning which were formed while they were students at schools and universities impeded the process of teacher change and made this process quite stressful.
6. All participants have developed self-organizing, time management, flexibility, mobility, and stress resistance skills which helps them to overcome the challenges and keep their work-life balance.
7. The change process for four NIS teachers was not linear, easy and fast but rather it was complex and dynamic in nature. Moreover, the change process required time and was saturated with different emotions.
8. While changing their beliefs and practices, all teachers underwent the following phases: *crisis; learning; trying; adopting and adapting*. The *Crisis phase* is described as conflict of prior teacher-centered beliefs and practices with the new demands and expectations of teachers and students, which is caused by a lack of content knowledge and practices regarding student-centered approaches and thus, led to dissatisfaction with their own teaching. The *Learning phase* includes obtaining new knowledge from collaboration within their department and participation in in-service professional development activities, where the teachers became teacher learners in student-centered environment. The *Trying phase* is related to teachers practicing the new approaches and strategies in their classrooms after or while they learned the new ideas from in-service professional development activities. Finally, *adopting and adapting* relates to adjusting the newly learned methodologies according to the teacher and student learning environment.

9. All teachers claimed that the increased NIS student outcomes were the result of teacher changed practices. In this vein, the teachers noted that their students developed their communicative skills in English which means that their students can use English for different purposes; through GPPW subject, their students developed research, critical thinking and how to learn skills, which help them in other subjects. Moreover, both teachers and students understood the benefits of the innovations which are implemented in their school. Finally, the improved students' outcomes predisposed the changes in teacher beliefs. However, it should be pointed out that the improved student outcomes became apparent for those teachers only over two or three years.

Conclusion

The purpose of this chapter was to present the findings of the study which explored how NIS teacher changed their beliefs and practices, what phases that process included, and finally, what enabled and impeded those changes. The chapter began with the discussion of changes in beliefs and practices from current and previous perspectives. Then, the catalysts and barriers were presented, followed by a description of the process of change and its phases. Finally, I summarized the main findings in order to discuss them further through comparison with the evidence from the literature and studies in the next chapter.

Chapter 5. Discussion of Findings

Introduction

The previous chapter presented the main findings of the study. This chapter provides the discussion of the findings which aims to answer the research questions of the study related to changes in beliefs and practices experienced by four NIS teachers as a result of working in one NIS school; the catalysts and inhibitors of the change process, and its phases as well. The findings from the previous chapter are discussed through examining the existing literature on the above-mentioned issues.

Discussion of Findings

Finding 1 of this study is identified as a shift in teacher beliefs and practices from teacher centeredness to student centeredness; from a grammar and memorization approach to a communicative approach; from a direct transmission view of learning to constructivist; from lesson planning without learner input to planning more structured and targeted lessons with learner input.

In considering in what particular dimensions or categories the changes in beliefs and practice were traced in this study, it is possible to assume the changes found in this study are consistent with categories of teacher change found in research by Richards et al. (2001) and Bailey (1992) (See Table 2). Both studies focused on exploring teacher changes in beliefs and practices. However, the studies of Richards et al. (2001) and Bailey (1992) being quantitative and survey-based involved more language teacher participants and aimed to shed light on the role of teacher beliefs in the teacher development process and on understanding the relationship between changes in teacher practices with changes in teacher beliefs.

Although the participants did not directly mention the origin of these changes, it is nevertheless quite obvious that shifts identified in this study are consistent with expected

changes in teaching practices which are implied by the new NIS learner-centered curriculum. This finding is in consistence with the studies of Richards et al. (2001) and Bailey (1992) who tried to identify the categories of teacher change. From the table below which represents the identified categories of teacher change in three studies, it is possible to state that the number of categories of changes may vary in different studies.

Table 2

Categories of teacher change

Categories of teacher change by Richards et al. (2001)	Categories of teacher change by Bailey (1992)	Categories of teacher change in the current study
Learner centeredness	Shift from teacher-centered classes to student-centered	Learner centeredness
Basic teaching philosophy	Use of various and authentic materials	More communicative activities, less drilling of grammar rules
The use of materials and resources	Shift from accuracy to communicative competence	Lesson planning, lesson structure
Language learning activities	Reduced focus on grammar rules	Using various and authentic materials and resources
Teaching grammar	More use of group work	More active learning
Teacher confidence.	More use of students' projects	Change in beliefs about teaching and learning, about teacher and student roles and their relationship
	Change in attitude	
	Change in procedures of teaching	

Finding 2 claims that collaboration performed mostly within their department through joint planning, coaching and team-teaching, was one of the main catalysts of changes in teacher beliefs and practices. According to the NIS teachers' answers, the collaborative culture within their department provided all teachers with collegial support for each other and international teachers, which enabled the NIS teachers to learn new approaches, new subject and research skills.

The finding is in agreement with the study of Garet et al. (2001) who advocate that study groups and coaching as new forms of professional development which take place regularly inside schools during the school day, the classroom instruction or scheduled teacher planning, provide more sustainable changes. Indeed, in the case of the NIS teachers, joint planning, coaching and team-teaching were mentioned as forms of collaborative activities which occur regularly inside their department.

Moreover, the teachers seem to have ownership of joint planning since they initiated this idea as a way to learn from each other. The fact that the teachers admitted the practical usefulness of joint planning in terms of saving time, confirms the statement by Hargreaves (1994) that teachers perceive any new change through its practicality. He claims that if a new idea works for “*this* teacher in *this* context”, a teacher starts to feel desire to change. Furthermore, desired collaboration is more effective than contrived and controlled collaboration since the latter leads to “safe simulation” and decreases motivation and creativity (p. 12). Therefore, it is possible to assert that due to this systematic, desired and continuing form of collaboration, the changes in the NIS teacher beliefs and practices are not only possible but there is a possibility that those changes could be sustained over time.

The finding is also consistent with the notion of job-embedded professional development by Croft et al. (2010) who claim that to improve teacher practices and student learning, learning should be integrated into everyday teaching practices inside schools and classrooms. Likewise, Hiebert (1999) confirms this by claiming that when there are no learning opportunities for teachers, they are likely to be stuck at their traditional approaches or they may just use only a few features without changing their teaching goals and approaches to lesson planning

However, this finding is impossible to interpret as only collaboration which stands aside teacher ongoing learning opportunities, because joint planning, coaching and team-teaching

already imply at least two or more people performing together. In this sense, collaboration and learning should be regarded as inseparable and interrelated.

Thus, it is possible to conclude that due to collaborative job-embedded learning within the department, NIS teachers have changed their practices and their beliefs. Moreover, the regular and continuing feature of this form of collaboration and ongoing professional development predisposes the sustainability of those changes.

Finding 3 implies that participation in outside school in-service professional development activities was another main catalyst of changes in teacher beliefs and practices since it provided all teachers with knowledge of new student-centered methodologies and promoted lifelong learning skills.

In this regard, it is important to emphasize that despite the fact that teachers came to the NIS school with strong traditional beliefs and practices, nevertheless, it turned out to be possible to change their beliefs and practices in a completely reverse direction. The finding is supported by the statement of Molebash et al. (2009) who claim that if teachers are provided with opportunities to become learners in constructivist context, it is possible to change their prior beliefs and practices.

It should be noted that all in-service training sessions and courses mentioned by the NIS teachers are designed in a way so that teachers could construct their knowledge through active participation in the newly-introduced active learning activities. Thus, it is possible to state that the NIS teachers experiencing the new approaches and being learners themselves could revisit their learning skills which may lead to better understanding of their role as teachers from their perspective of teacher learners.

However, the finding refutes the study of Garet et al. (2001) who criticize the traditional form of professional development which takes place outside school with a trainer and teachers attending a certain workshop. Such form of professional development is claimed by them as providing changes which are not sustainable over time. With this in mind, they advocate day-by-day ongoing learning opportunities as guaranteeing more sustainable changes. Similarly, Timperley et al. (2008) also doubt the effectiveness of professional development with outside experts, because they are not present in the school on a daily basis, therefore, they cannot be aware of the real teaching context and consequently, they cannot help teachers to connect the new ideas with their real teaching practices.

However, all NIS teachers mentioned outside in-service professional development courses and training as being helpful, albeit in terms of acquiring theoretical content and pedagogic knowledge about the new student-centered methodologies. This finding corroborates the ideas of Joyce & Showers (2002), who suggested that in teacher professional development, teachers should not only learn strategies and skills but to understand the theoretical knowledge that underpin those strategies and skills.

If we attempt to summarize the enablers of teacher change, then it is obvious that the previous two findings of the current study (collaborative job-embedded learning and in-service professional development) should be identified as the main catalysts of the process of the NIS teacher change. Both findings support the previous study of Parise & Spillane (2010), who tried to explore two such forms of teacher learning opportunities as *formal professional development* and *on-the-job learning* trying to understand which of them is more effective in terms of facilitating educational change. The finding of their study showed that both formal professional development and on-the-job learning were equally predicative in terms of providing opportunities for teacher change.

Definitely, the NIS teachers in describing the facilitators of their change mentioned both formal in-service professional development activities, for example, training, seminars and workshops which were organized outside their classrooms and schools; they also mentioned learning opportunities, for example, sharing seminars, joint planning, coaching and team-teaching which took place inside their department and classrooms. Moreover, the NIS teachers mentioned those two forms as being equally effective in terms of having impact on their change.

The above-discussed findings representing two main catalysts of the NIS teacher changes in beliefs and practices may mean a relatively good correlation between *formal in-service professional development* and *collaborative job-embedded learning*. From the former the NIS teachers could gain theoretical knowledge while from the latter they could connect the new knowledge to their real teaching practices respectively.

Finding 4 indicates that all participants mentioned that paperwork, red-tape and urgency are significant barriers which deprive teachers of time and impede the process of teacher change. Moreover, three teachers mentioned that they experience stress and emotional burnout when they face the above-described challenges.

The finding confirms the statement by Hargreaves (1994) who claims that time is perceived differently by teachers and administrators; teacher time viewed as polychronic implies doing many things simultaneously whereas monochronic and linear perspective of time owned by administrators suggests doing things step by step according to the scheduled time. Such discrepancy in time perceptions between teachers and school administration in turn leads to intensification of the teaching profession. Hargreaves (1994) also states that the more innovations are implemented, the more accountability and control are imposed over teachers who implement changes, and the more pressures it means for teachers because teacher roles and responsibilities are increased.

The finding is also consistent with Smylie (1999) who defines teacher overload as the result of inconsistency between amounts of work that teachers must do and pace or time availability. Smylie (1999) emphasizes that stress which is caused by bureaucratic interference, for example, paperwork, often results in a lack of teacher autonomy and ability to control their own work. In this case, one of the negative consequences of such stress may be teacher burnout which leads to teacher emotional exhaustion, depersonalization of students, negativism, and cynicism.

Overall, the consistency of the finding with other studies and literature confirms that time is critical for teachers who implement innovations. A lack of time causes stress and intensifies teacher work, which may result in teacher burnout.

Finding 5 claims that three more experienced teachers started their professional career in the NIS school with teacher-centered beliefs and practices which inhibited the change process because those prior beliefs and practices were deeply-rooted, which in turn made the change process more stressful.

This finding is consistent with the construct of Lortie's apprenticeship of observation (as cited in Borg, 2004) which is described as deeply-rooted beliefs that people acquire having spent numerous hours observing their teachers. Indeed, reflecting on their previous beliefs and practices, the participants explained the teacher centeredness of their practices by mentioning their experiences of being students at the universities. In this light, the teacher centeredness of their beliefs and practices can be explained by the legacy of the Soviet and Post-Soviet educational system since those teachers had observed teacher centeredness as students at Soviet and Post-Soviet schools and universities, and consequently, the teachers inherited those teacher-centered beliefs and practices.

However, the finding refutes some research that claim that those prior beliefs are impossible or hard to change. For example, Clark and Peterson (1984) and Richardson (1996) assume that teacher prior beliefs about learning which were formed while they were learners themselves are the most resistant and thus, teachers may resist any change which confronts their existing beliefs. In the case of the NIS teachers, this study did not reveal any resistance to change.

Thus, it can be assumed that the teachers were quite conscious of the need to change their practices. Possibly, this can be explained by the fact that since the new curriculum and the new assessment system directly related to it, were introduced to all NIS schools, there was no point for those teachers to resist change. Therefore, it is possible to state that even though the NIS teachers have managed to change their beliefs and practices, the process of change possibly was not easy and fast since those previous beliefs being deeply-rooted, probably took time and energy to be transformed.

Finding 6 indicates that all participants have developed self-organizing, time management, flexibility, mobility and stress resistance skills which help them to overcome challenges and keep their work-life balance. Moreover, the teachers mentioned that they learned to avoid stress by being more organized and mobile; and in this case, stress is mentioned as a force for development of personal skills.

The finding is consistent with the statement by Gibbs (2003) who claims that an effective teacher is able to survive the stresses, pressures and challenges within various teaching environments; and there should also be capacity to be flexible and to be ready if there is a failure. Fullan (1993) also confirms the finding by claiming that since teacher change is not always linear and easy, teachers often experience stress and anxiety when trying new ideas and only after undergoing this painful process may they entirely integrate the new idea.

The finding is also consistent with Smylie (1999) who identified different sources and consequences of stress in teacher's work in the context of educational reforms. For example, he claims that stress can be caused by *role conflict* where inconsistency in role expectations of teachers occur repeatedly. Another source of stress is *role ambiguity* which refers to unclear information about duties and responsibilities in which teachers cannot understand what should be done to accomplish their role successfully. Interestingly, Smylie (1999) pointed out that stress may have both positive and negative consequences. For example, in a situation in which the teacher role is uncertain the positive stress may result in producing creativity and growth. However, the negative consequences may lead to teacher burnout which is characterized by emotional exhaustion, depersonalization of students, negativism and cynicism.

Indeed, the NIS teachers mentioned all above-described sources of stress in a different context. For example, a younger teacher mentioned that at the beginning of her career at the NIS school she felt stress but this stress motivated her and facilitated her creativity. This positive kind of stress related to that teacher's curiosity about her capacity to achieve effective teaching. However, she mentioned her current stress negatively in the context of being distracted by paperwork and extra duties.

To conclude, it is possible to state that stress is inevitable in NIS teacher work. Moreover, in this case stress is the driving force for the development of professional skills.

Finding 7 shows that while changing their beliefs and practices all NIS teachers have gone through the following phases: *crisis; learning; trying; adopting and adapting*. Moreover, the process of change in beliefs and practices is not linear but rather it is complex, dynamic and cyclic since every time the teachers face a challenge, they go through these phases.

Crisis was mentioned by the teachers as a conflict between their prior teacher-centered beliefs and practices with the new demands and expectations of teachers and students. It was in

the phase of the *crisis* when the teachers realized the previous teaching should be changed. The finding is consistent with the statement by Dhindsa and Anderson (2004) who highlight that teachers tend to rethink their previous beliefs and practices when faced with challenging experiences. In this term, the NIS teachers seem to be challenged by the demands to use student-centered approaches on the one hand, and lack of knowledge and practices on those approaches of the other hand.

Moreover, crisis in this case is consistent with the Theory of Cognitive Dissonance by Festinger (1957) which claimed that a person feels tension when new knowledge opposes previous knowledge and assumptions. This experience of being uncomfortable pushes that person to avoid situations where dissonance may occur again; and thus, makes that person increase consonance through learning and changing their practices.

During the *learning* phase the teachers were obtaining new knowledge and skills from participation both in job-embedded learning and in-service professional development activities. For the NIS participants of this study, learning occurred in different forms and perspectives. For example, the NIS teachers learned individually and collaboratively; they learned inside their classrooms, department and school; they learned from each other, from their students and from external experts; they learned through attending different courses and training sessions outside their school as well. Thus, during the *learning* phase, the teachers became teacher learners and had the opportunity to revisit their learning skills.

Trying is related to practicing the new approaches and strategies by the teachers in their classrooms after or while they learned the new ideas from in-service professional development activities and their ongoing learning opportunities. In other words, the NIS teachers tried to apply the newly-obtained knowledge in their everyday teaching practices. It was during the *trying* phase that the NIS teachers desperately needed help in planning and conducting their

lessons using the new strategies. It was collegial support and collaborative activities that helped them to change their practices to more focus on their students.

Finally, *adopting and adapting* relates to adjusting the newly learned methodologies according to the teacher and student learning environment. During this phase, the NIS teachers regulated the use of the new strategies according to their teaching style and their students' needs so as to improve their teaching practices and their students' outcomes. It was during this phase that the NIS teachers established the pattern of planning their lessons with new strategies.

Finding 8 indicates that the increased NIS student outcomes were the result of the teacher changes in practices. Speaking about student outcomes, all teachers admitted that their students developed their communicative, critical thinking and research skills. What is more important is that both the teachers and their students understood the benefits of the new student-centered practices, which in turn changed their beliefs about teaching and learning, about teacher and student roles; and about lesson planning, and procedures.

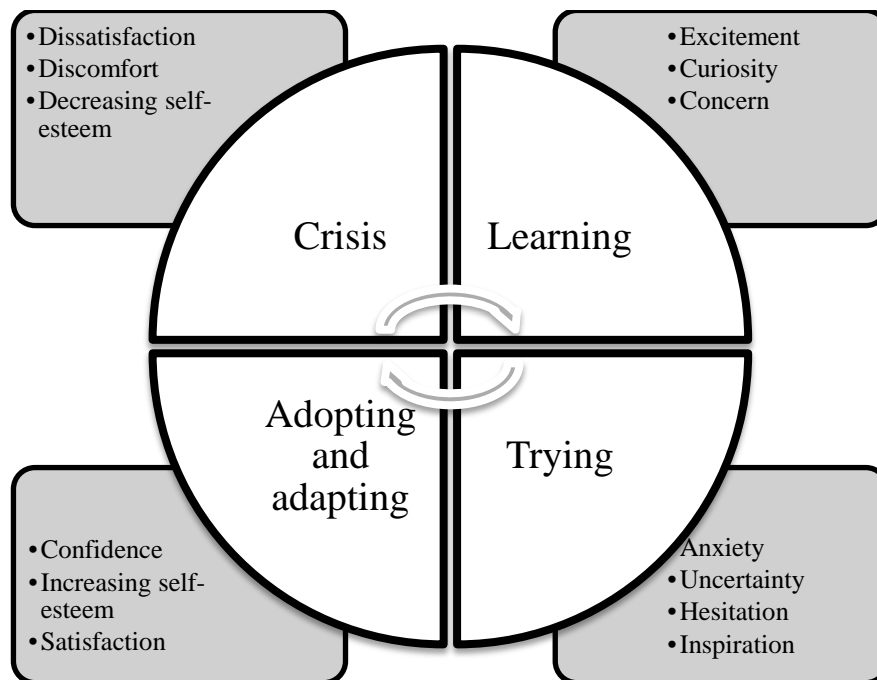
The finding supports the study of Timperley et al. (2008) who emphasize that success of changed practices should be identified from the perspective of the impact on valued student outcomes rather than from the perspective of teacher mastery of new approaches. According to Timperley et al. (2008), student outcomes whether narrow or broad should be clear for teachers who are involved in professional learning because without that focus on student outcomes, there is a risk that changes in teacher beliefs and practices will not make any difference for students. In this term, it is possible to claim that changes in NIS teacher beliefs and practices imply not only teaching mastery and skills but those changes have had a positive impact on student outcomes as well.

The finding is also consistent with the statement of Guskey (2002) who claimed that one of the reasons for increased student outcomes may have been due to teacher changed practices as a result of teacher learning through professional development activities. Trying to identify the sequence and the relationship between four components of teacher change (professional development, teacher beliefs, teacher practices and student outcomes), he argues that only when teachers gain evidence of improved student outcomes, are they likely to change their beliefs (See Figure 3). In this sense, it should be noted that by student outcomes, Guskey (2002) understands not only increased student scores in tests or examinations but change in student behavior and attitudes as well. Indeed, in their interviews, the NIS teachers seemed to mention both changes in student outcomes: the changed outcomes that can be measured and assessed, and changes in their student attitudes.

However, all participants maintained that these student outcomes could be seen only in two or three years. The finding is consistent with the statement by Anderson (2012) that it takes three to five years for teachers to implement a programme aimed at changing practice. Therefore, it is possible to state that the teacher change process should last two to five years when the changes in teacher practices and their impact on student outcomes become visible.

Having identified the main phases of the change process for four NIS teachers, it is possible to describe the entire process of change, using the findings of this study and the theory from other studies. Thus, it seems possible to create a model of NIS teacher change process in this study (see Figure 5).

Figure 5. NIS Teacher Change Model



The NIS Teacher Change Model is partially consistent with different models from other studies. For example, the Concerns-Based Adoption Model (CBAM) of Hall & Hord (1987) describes the process of using new approaches and concerns that teachers undergo while trying new approaches (See Figure 1).

However, even though CBAM can be best applied to describe the adoption of a certain approach, it does not depict the *crisis* phase as a starting point and the *learning* phase which may be supposed to occur before one starts using a new approach. Nevertheless, some similar concerns were identified in the present study when the teachers were reflecting on their change process. For example, an awareness concern was identified when the NIS teachers started their professional journey in the NIS school. Possibly, they had informational concerns when they observed their colleagues' lessons or learned about new approaches during joint planning or professional development training. The teachers certainly were curious and anxious at the same

time when they were thinking about how to plan their lessons with the new approach and how this approach would affect their students. The teachers also mentioned that the new approach was modified to fit their practices so as to increase their students' outcomes.

Another model which is more consistent with the finding of this study is Concerns-Based Conceptual Change Model (CBCCM) by Molebash, Capps, & Glassett (2009). Four main stages of concerns that teachers undergo when changing their beliefs and practices are *orientation*, *understanding*, *feasibility* and *progression*. The *orientation* stage is similar to *crisis* phase and includes the same emotions that the teachers mentioned in their interviews in this study. *Understanding* stage is consistent with *learning* phase since the teachers were learning new skills and obtaining theoretical knowledge. *Feasibility* stage with its concerns is identical to *trying* phase; and at this point, the teachers mentioned their concerns about lesson planning and the students' outcomes. Finally, *progression* stage matches the phase of *adopting and adapting*; and at this phase, the NIS teachers mentioned that they started to see the outcomes of their changed practices through evidencing their student outcomes (See Figure 2).

Another important similarity between CBCCM and the NIS model is that both models are cyclic and can be applied not only for using a new approach in teaching but rather to any challenge that teachers face in their work. However, collaboration in the NIS Teacher Change Model is referred not as a certain concern or a phase but rather as one of the most critical catalysts of teacher change.

Another model may be relevant in this study to determine the sequence of changes and the duration of the entire change process. If to apply the teacher change model by Guskey (2002) to NIS Teacher Change Model, it is possible to assume that within the period of the first and second year, the NIS teachers were learning through professional development activities and changing their practices while during the second and third year after having gained the

evidence of improved students' outcomes, they changed their beliefs (See Figure 3). This statement refers to Finding 8 which indicates that the improved students' outcomes became evident only in two or three years.

Conclusion

In this chapter I discussed and examined the findings using different studies and literature. This discussion is followed up in the next chapter which aims to answer the research questions of the study.

Chapter 6. Conclusion

In the previous chapter I discussed the findings through relevant literature. The purpose of this case study was to explore the process of reconceptualization of beliefs and practices related to teaching and learning experienced by four NIS English teachers while working at one of the NIS schools. In this chapter I draw the conclusions from this study which follow the research questions and the findings; and therefore, address four areas: a) changes in teacher beliefs and practices; b) the process of teacher change and its phases; c) the catalysts for teacher change; d) the barriers for teacher change. Some implications of my study, recommendations and areas for further research are also included in this chapter. Finally, limitations of the study and final reflections on this study are presented at the end of the chapter.

Revisiting Research Questions

How have teachers' beliefs and practices related to teaching and learning changed while working in NIS? The results of this research indicate that for three to five years of working at one of the NIS schools, the NIS teachers' previous beliefs and practices shaped by their earlier experiences of the Soviet and Post-Soviet educational system, have shifted from teacher centeredness to student centeredness; from a grammar and memorization approach to a communicative approach, from a direct transmission view of learning to constructivist, from lesson planning without learner input to planning more structured and targeted lessons with learner input. Moreover, all teachers have become self-organized, mobile, flexible and stress resistant. Furthermore, the changes in the NIS teachers' beliefs and practices have induced improvement of their student outcomes.

A conclusion to be drawn from this finding is that there are certain conditions and a particular environment created in one of the NIS schools which contribute to NIS teachers'

professional and personal growth. The teachers who have worked at least three years at the NIS school, implementing the new student-centred curriculum inevitably have changed their beliefs and practices from teacher centeredness to student centeredness. However, it may take at least three to five years to make the changes in teachers' beliefs and practices and their impact on students' outcomes evident.

What was the process of reconceptualization for these teachers during their work experience in NIS? What are the different phases they go through during this process?

The study found that the reconceptualization process for all NIS teachers is cyclic, complex and dynamic by nature and consists of the following phases: *crisis; learning; trying; adopting and adapting*. Each phase is fraught with opportunities and challenges and each of the phases is saturated with different concerns and emotions which may be both positive and negative. What is more important is that the main outcome of reconceptualization process is the improvement of student outcomes which helped the teachers to understand the benefits of the new teaching approaches which in turn facilitated the changes in teacher beliefs. Therefore, a conclusion that can be drawn from this finding is that since teacher change process is not linear, fast and easy, there should be constant monitoring, support and certain timely interventions so that teachers who implement innovations may move successfully from one phase to another.

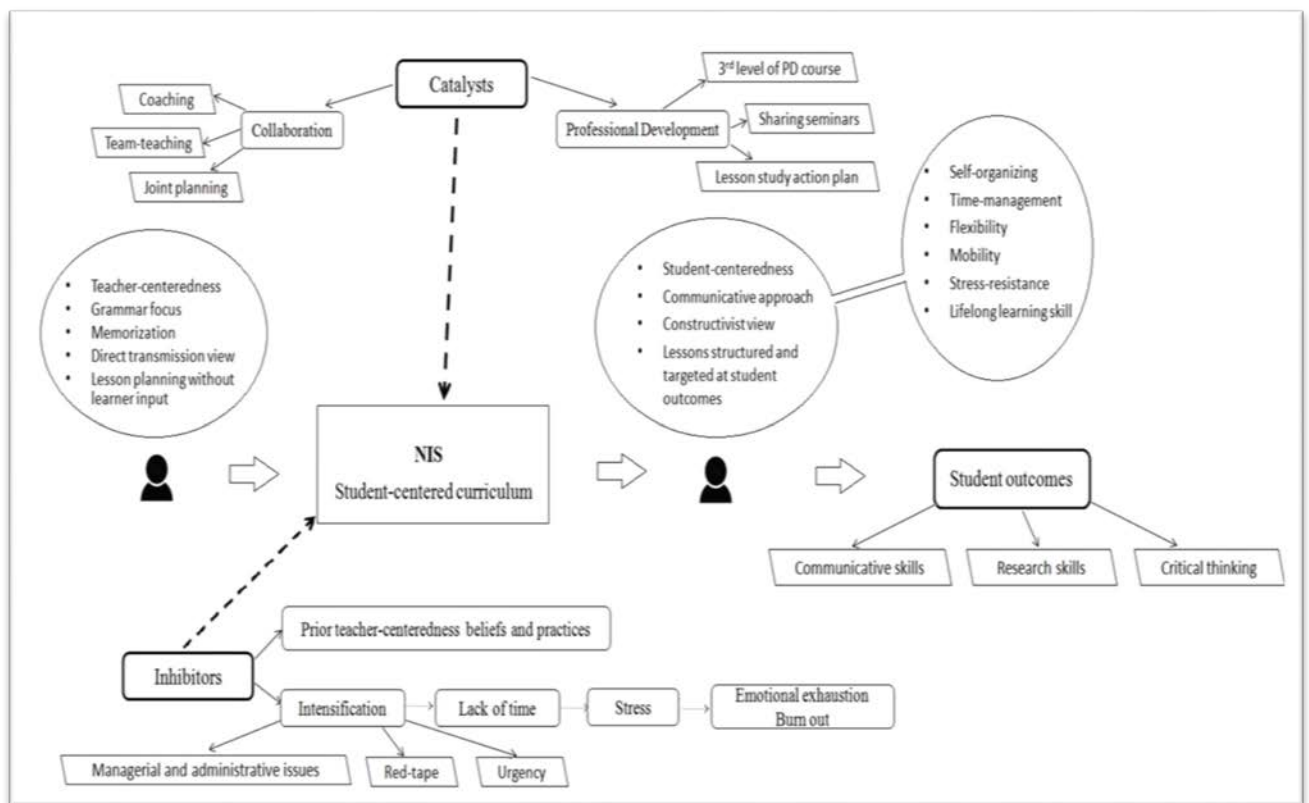
What were the catalysts and barriers to the reconceptualization? The conclusions for this research question are divided in two parts. Firstly, the study found that involvement in in-service professional development activities, job-embedded teacher learning; and collaboration were the main catalysts of the NIS teacher change process. All NIS teachers mentioned that through outside-classroom in-service professional development courses and training sessions the teachers gained the content knowledge of new student-centered methodologies and techniques, while through collaborative job-embedded teacher learning they had the opportunity to put the new knowledge into practice. Moreover, due to collaboration the

teachers could learn from and support each other in implementing innovations. A conclusion to be drawn from this finding is that in order to achieve successful teacher change, teachers need content knowledge and skills regarding learner-centered methodology which should be connected with their real teaching practice. Moreover, teachers learn better through collaboration through supporting and sharing their knowledge and practice.

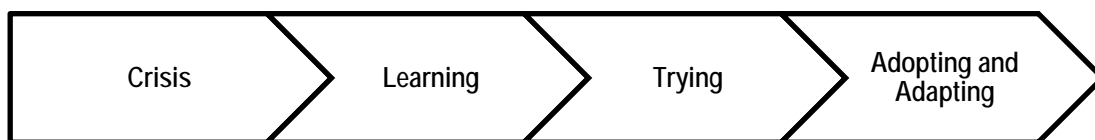
Secondly, managerial and administrative issues, paperwork, red-tape and urgency cause stress and intensify teachers' work. These problems deprive the teachers of the time which they need to adopt and adapt new teaching approaches and thus, impede the process of teacher change. A conclusion to be drawn from this finding is that the teaching profession at one NIS school is challenging and intensified, which makes the teacher change process more stressful. Moreover, when issues are not addressed appropriately and timely, there is a risk that lack of time to adapt and improve their teaching practices as well as increased pressures and responsibilities may lead to teacher emotional exhaustion and burnout. Finally, the discrepancy between teachers and administrators in terms of time perceptions should be taken into consideration so as to plan and distribute time more rationally and realistically.

Based on the findings of this study, the previously created Conceptual Framework which was presented in Chapter 2 (Literature Review) has been updated so that to illustrate the key concepts of teacher change for NIS English teachers including the relationships between the main elements.

Figure 6. Updated Conceptual Framework



2-3 years



Recommendations

Based on its findings, analysis and conclusions, this study provides the following implications for NIS novice teachers, NIS educational leaders and policy makers from the Ministry of Education and Science.

Recommendations for NIS novice teachers. From this study it became clear that working in the NIS environment implies working in the mode of implementing innovations, and specifically the implementation of the new learner-centered curriculum which in turn involves using new teaching methodologies and techniques. This, in turn, requires necessary

knowledge and skills, which is possible to gain through continuous learning. Moreover, the results of the study suggest that collaboration is critical for NIS novice teachers to adapt to the new working context. Finally, teachers need to understand that professional and personal growth is a complex process of change that may take at least three years to make the outcomes evident.

Recommendations for NIS educational leaders and policy makers. The evidence from this study suggests that the process of implementing the new learner-centered curriculum is a long and stressful process, especially for more experienced teachers who come to work in the NIS schools with previous teacher-centered beliefs. Therefore, it is necessary to monitor the process of teacher change, namely to provide support at each phase of the process so that NIS teachers may successfully move from one phase to another. Moreover, it is necessary to introduce NIS teachers to the specifics of the process of change so that they may be aware of the fact that certain difficulties and emotions are natural at a particular phase of teacher change. Finally, to decrease intensification of teacher work, the system of accountability needs to be reviewed so as to provide the schools with more autonomy and time.

Recommendations for policy makers from the Ministry of Education and Science. In light of the conclusions of this study, it is clear that for reforms at the secondary level of education in Kazakhstan to be successful, the pre-service teacher education programme should be reviewed. This is recommended so that during university studies, teacher students may experience student-centered and constructivist methodology and techniques, which in turn will allow to shape their student-centered beliefs about teaching and learning.

Moreover, the experience of NIS teachers from this study, in particular the model of the NIS teacher change process, shows that teachers in mainstream schools are likely to go through the same phases of the change process. Thus, the NIS model may be helpful to deepen understanding regarding the reasons for different reactions and difficulties experienced by

teachers in mainstream schools at certain phases of the change process and what kind of support should be provided during this or that phase.

Directions for Further Research

Further studies are recommended to develop a larger databank of information so as to gain a more comprehensive understanding of the teacher change process, its enhancers and inhibitors. In this term, a survey of a large sample of NIS teachers from different NIS schools and NIS school departments should be considered for a quantitative study to reveal both general and specific features of the NIS teacher change through comparing and analysing the data collected from different NIS samples and sites.

A further similar study should be conducted among teachers from 30 pilot mainstream schools at which the adapted student-centered NIS curriculum is already being introduced and implemented. The study would allow to gain in-depth understanding of the teacher change process in the scope of reforming secondary education in Kazakhstan as well as provide recommendations for policymakers from the Ministry of Education and Science on ways to support teachers in implementing the innovations.

Limitations of the Study

This is a single study of four English teachers in the context of one particular NIS school and one particular department within that school. If we want to have a more general picture of the process of teacher change in the context of NIS schools, cross-case studies throughout different school departments and throughout the NIS school network will provide more general information and deepen our understanding of the process of teacher change.

Since the teacher change process takes at least three years, a longitudinal methodology is beneficial to capture the teacher change process. The study suggests that to verify the data, the

interviews focused on teachers' changes in beliefs and practices should be complemented with lesson observations and document analyses.

Final reflections on the study

The study helped me to understand more profoundly what difficulties NIS teachers undergo while implementing the NIS curriculum and why those problems occur. Moreover, this new knowledge will help me to provide better support to my teacher colleagues. As a researcher I have gained important knowledge and skills on conducting research. While doing this research, I read numerous studies on teacher beliefs and practices, in particular how they change. This new knowledge helps me not only in my work but in my life as well because while doing this research two major changes occurred in my life: firstly, I gave birth to my youngest daughter; and secondly, my job changed from being a curriculum specialist to becoming the head of analyses and research department at the NIS Centre for Educational Programmes. Thus, it can be assumed that conducting this research was timely in my personal and professional life.

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Appendix A: Informed Consent Form

INFORMED CONSENT FORM

RECONCEPTUALIZATION OF TEACHERS' BELIEFS AND PRACTICES RELATED TO TEACHING AND LEARNING AS A RESULT OF WORKING AT NAZARBAYEV INTELLECTUAL SCHOOLS

DESCRIPTION: I am a student of Nazarbayev University Graduate School of Education and this research is part of my 2 year Master of Science Program. You are invited to take part in the research study on how teachers of one of Nazarbayev Intellectual Schools have been undergoing changes in terms of their beliefs and practices since they started working at NIS. Before you decide to participate in this study, it is important that you are familiar with the research nature and purpose. Please take time to read the following information carefully which is provided to help you decide whether you wish to participate in the study.

You will be asked to participate in three face-to-face interviews each of which will last about one hour and will be audio taped. Your name in the data will be coded and will not be associated with any part of my written research report. All the information and interview responses will be preserved confidential.

TIME INVOLVEMENT: Your participation will take approximately three weeks. The data will be collected using three face-to-face interviews. The interval between the three interviews will be about 2 months because as soon as I transcript and code the data from the first interview, there will be some additional questions which I will need to explore. The third interview will be optional to clarify some answers and may be conducted through telephone or skype. All the information and interview responses will be preserved confidential. The collected data will be kept in my laptop which is accessed only through my secret password. All the data will be devasted as soon as the study has been finished and presented.

RISKS AND BENEFITS:

There is a risk that the interviews with the participants will require extra time from the teachers who may be loaded with their routine professional duties. To prevent this risk, I will negotiate the flexible interview schedule with you before the data collection process starts. There are no other risks associated with this study.

The expected benefits associated with your participation will be the information about your experiences of working in context of implementing innovations. The research findings will help to bring into the light of NIS departments and centers the issues related to teachers' experiences of innovations being implemented so that to modify the policies on professional development courses and provide congruent conditions for successful implementation of introduced innovations. Another group that may benefit from this study is NIS novice teachers who come to work to NIS schools. The NIS teachers' stories about changes may help those novice teachers to adapt to the new context as well as to inspire them to change their practices. Finally, policy makers from the Ministry of Education will potentially benefit from this study

because understanding how NIS teachers learn and change may help to identify some possible issues of working in the context of changes and predict the possible scenario when Kazakhstani state schools teachers will have to implement the new educational standards. I will share the findings with you right after the research is completed. Your decision whether or not to participate in this study will not affect your employment.

PARTICIPANT’S RIGHTS: If you have read this form and have decided to participate in this project, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. The alternative is not to participate. You have the right to refuse to answer particular questions. The results of this research study may be presented at scientific or professional meetings or published in scientific journals.

CONTACT INFORMATION:

Questions: If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, contact the research supervisor Daniel Hernandez Torrano, Assistant Professor at Nazarbayev University Graduate School of Education, daniel.torrano@nu.edu.kz or the researcher Zhanar Akizhanova, zhanar.akizhanova@nu.edu.kz, mob.tel. +77014331471

Independent Contact: If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the NUGSE Research Committee to speak to someone independent of the research team at +7 7172 709350. You can also write an email to the NUGSE Research Committee at gse@nu.edu.kz

Please sign this consent form if you agree to participate in this study.

- I have carefully read the information provided;
- I have been given full information regarding the purpose and procedures of the study;
- I am aware that my interview will be recorded;
- I understand how the data collected will be used, and that any confidential information will be seen only by the researchers and will not be revealed to anyone else;
- I understand that I am free to withdraw from the study at any time without giving a reason;
- With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Signature: _____

Date: _____

The extra copy of this signed and dated consent form is for you to keep.

Appendix B: Interview questions
Interview Protocol (1st Cycle)

Interviewee: Teacher (1, 2, 3, 4)

Date:

Time:

Place:

Preliminary procedures: introducing self, the purpose of the study, and anonymity protection; getting permission to record; signing the consent form.

Dear Participant!

Thank you for taking the time to participate in the interview which is part of my thesis master's program. The following questions will help me learn more about how teachers' beliefs and practices related to teaching and learning have change while working in NIS schools. During the interview there may be some additional questions that will help me to clarify your answers. I would like to remind that the confidentiality and anonymity of your responses will be kept.

1. When and why did you decide to become a teacher?
2. How long have you been teaching? How long have you been working in the NIS?
3. In your opinion, have your beliefs and practices related to teaching and learning changed while working in NIS? If yes, please give specific examples or aspects.
4. What changes occurred first and what changes occurred later?
5. What things or experiences while working at NIS made you change your beliefs and practices related teaching and learning?
6. What emotions (e.g., fear, anxiety, excitement, pleasure, satisfaction) have you experienced during this process of change?
7. How have these emotions evolved during the process? Have you experienced the same emotions throughout the process or these emotions were changing over time?
8. What factors facilitated you to change your beliefs and practices?
9. What kind of support was provided to facilitate the change of beliefs and practices?
10. What factors inhibited you from changing your beliefs and practices?
11. What should be done to further facilitate the changes?

Follow up procedures: expressing gratitude and obtaining consent for participation in 2nd cycle of interview.

Interview Protocol (2nd Cycle)

Interviewee: Teacher (1, 2, 3, 4)

Date:

Time:

Place:

Preliminary procedures: reminding the purpose of the study and anonymity protection; getting permission to record.

Dear Participant!

Thank you for taking the time to participate in the second interview. I would like to remind that the confidentiality and anonymity of your responses will be kept anonymous. The following questions will help me to receive more information on how teachers' beliefs and practices related to teaching and learning have change while working in NIS schools.

During the previous interview you said that you have changed your teaching while working in NIS providing certain aspects of teaching that have changed. (Here the researcher will use the data from the previous interview to remind of the certain aspect mentioned by the participants)

1. How did your changed aspect of teaching worked in your previous teaching before you came to NIS?
2. Why did you decide to change this aspect of teaching? Can you describe when and how you understood that you need to change this aspect of teaching? How did you feel about it?
3. Where and how did you learn about a new aspect? How did you feel while learning it?
4. Do you remember how you started to put a new aspect into your practice? Can you please describe your first experiences of using it? How did your students react to that new aspect? How did you feel while trying it for the first time?
5. How did this new aspect of teaching fit into your teaching? Did it take more or less time for your lesson planning? Were there any issues in using it?
6. Did the new aspect make sense for you? Can you describe how your teaching changed when you started to use the new aspect? How did you feel about it?
7. How did the new aspect affect your students' outcomes? What evidence did you have for that?
8. Did you speak with your colleagues or school administration about your using that aspect? What did they think about it?
9. Are you still using the aspect in your teaching? How did you adapt it for your present teaching?
10. Do you know if any of your colleagues are using this aspect? If yes, do you discuss using this aspect?

Follow up procedures: expressing gratitude and giving a present for participation in the study.

Appendix C: Data Analyses Approach Coding Schema

Changes in beliefs and practices

- CBP1. From teacher centeredness to student centeredness
- CBP2. From grammar and memorization to a communicative approach
- CBP3. Lesson planning

Catalysts of Changes

- CC1. Collaboration
 - CC1.1. Joint planning
 - CC1.2. Coaching and team teaching
- CC2. In-service professional development

Inhibitors of Changes:

- IC1. Intensification of the teaching profession
 - IC1.1. Teaching between English and GPPW
 - IC1.2. Teaching at different grades
 - IC1.3. Paperwork, red-tape and urgency
- IC2. Prior beliefs and practices

Change Process and its Phases

- CPP1. Crisis
- CPP2. Learning
- CPP3. Trying
- CPP4. Adopting and adapting