

Academic achievements of students with special needs in inclusive education

*A case study of one primary school in
Azerbaijan*

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Abstract

This study aims to research the academic achievements of children with special needs in inclusive education (IE) in Azerbaijan. The study will try to look at this aspect through the view of teacher assistants who are the key figures in inclusive education in Azerbaijan. Also, one of the important elements will be teaching method of teacher assistants. Teaching method is one of the determinant factors of better academic performance of children. When it comes to inclusive education, educators' performance in the class process gains more importance, and becomes leading factor for proper inclusion and attainment of children with special needs. Taking this undeniable factor into consideration, this case study will try to analyze one of the rare schools offering inclusive education in Azerbaijan in order to find out how successfully that school educates students with special educational needs applying adequate methods for higher academic fulfilment of children with special needs.

This research is underpinned by qualitative case study research design which is considered to be suitable and relevant approach to address the phenomena of the research. The study employed triangulation, a multiple methods of data collection which included interview and observation. Moreover, the thesis will also focus on validity, reliability and ethical issues along with weaknesses and strengths of the methodological aspects. The phenomenon to be investigated in this research, it is the academic achievements of children with special needs, more precisely mental disabilities. The case to be studied in this research is a primary school which offers an inclusive education for children with mental disabilities. The unit of analysis includes three inclusive classes in which children with mental disabilities are educated. The focus of this research concentrates on the teacher assistants' teaching methods which have direct effect on academic achievements of children.

Research findings conclude that students with special educational needs manage to learn some academic skills in inclusive education. However, they can learn more if the barriers can be eliminated. The main barrier is the traditional teaching methods with which it is impossible to create effective inclusive environment in the classroom and contribute more to student's achievements. The recommendations of the study are as follows: law enforcement for IE; teacher training at higher educational level; and systematic innovations at *functions, organization, role relations and curriculum* levels. Implications for further studies suggest that barriers and social aspect of IE need to be studied in particular.

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I am also deeply indebted to all the professors who lectured and enlightened us about secrets of professionally organized special needs education. Studying in this program and writing my master thesis contributed immensely to my experience and world view, totally changing my ideas and attitude towards special needs education.

Dedication

I dedicate this thesis to all the students with special educational needs studying in inclusive schools.

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Abbreviations

CSN –Children with special needs

EFA - Education for All

IE – Inclusive education

IEP – Individual education plan

TA – Teacher assistant

UN - United Nations

UNESCO - United Nations Educational, Scientific and Cultural Organization

1 Introduction

1.1 Background

There is a distinctly declared agreement in the world that all children have the right to education regardless of their race, gender, nationality, disability and etc. And these agreements have been indicated in universally important documents. The United Nations Declaration on the Rights of Mentally Retarded Persons (1971), the UN Declaration in the Rights of Disabled Persons (1975), World Program of Action Concerning Disabled Persons (1982) adopted by the United Nations General Assembly, the United Nations Convention on the Rights of the Child (1989), the United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993) and UNESCO's Salamanca Statement and Framework for Action (1994) form a strong basis for international legal standards on disability and function as critical documents providing children with disabilities the right to education and abolish discrimination against them (Kokkala, 2006). United Nations Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993) emphasizes principle of equal primary, secondary and tertiary educational opportunities for children, youth and adults with disabilities, in integrated settings. But United Nations Guidelines for Inclusion provides the clearest statement: "Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education." (UNESCO, 2005).

Children learn in various ways and paces. To enable all children to develop in terms of academic, social, and physical abilities schools should create inclusive and student-friendly environment. It is a fact that academic potential of all children grow effectively when it is based on social and emotional potentials. However, the majority of children with special needs do not attend schools or they are enrolled in special schools which keep them away from society. To provide children with special needs (CSN) with quality education in regular schools, it is necessary to have a critical look at school policies and practices to make sure that they can properly accommodate all children with diverse education needs. Many people are sceptical about enrolling children with special needs in public schools since they are not sure how this practice can affect the quality of education for other children. However, if

public schools could remain loyal to inclusive principle, it would be possible to educate all students equally. School improvement trends and reforms should aim for inclusive and student-friendly environments for all (UNESCO, 2009).

Considering the above-mentioned statements, which call for inclusive society as well as inclusive education, this study aims to address one aspect of inclusive education (IE). This aspect is the academic achievements of children with special needs in IE in Azerbaijan. The study will try to look at this aspect through the view of teacher assistants who are the key figures in IE in Azerbaijan. Also, one of the important elements will be teaching method of teacher assistants (TA). Teaching method is one of the determinant factors of better academic performance of children. When it comes to inclusive education, educators' performance in the class process gains more importance, and becomes leading factor for proper inclusion and attainment of CSN. Taking this undeniable factor into consideration, this case study will try to analyse one of the rare schools offering inclusive education in Azerbaijan in order to find out how successfully that school educate CSN applying adequate methods for higher academic fulfilment of CSN. This issue is also of critical importance because inclusive education is quite a new sphere in education system in Azerbaijan. Therefore it becomes important to investigate different aspects of inclusive education (IE) in order to evaluate how successful the implementation of IE is. Out of many aspects of IE, this study will try to narrow down on academic aspect of IE.

1.2 Historical background and general statement of the problem

For certain reasons special needs education has always been of inferior importance both in developed and developing countries. Stereotypically, children with disabilities have been deemed to be indifferent to education and unable to perform as perfectly as others. This misconception led to exclusion of children with disabilities in education which left them out of focus not only in education but also in almost all areas of social life. Therefore this sphere always demanded special, harder and affectionate consideration throughout all stages of history as disabilities vary in terms of mental and physical aspects and both require deep consideration and professional approach in every corner of the world.

For decades, as many other Soviet Union countries Azerbaijan has implemented medical model approach in education towards people with special needs. This approach originated from “defectology” (meaning: “study of defects”) which is based on Vygotsky’s view (1993). Azerbaijan still bears remnants of former education system making every effort to adjust it to modern and sophisticated western education system which is obviously quite challenging and time-consuming issue. To be successful in special needs and inclusive education major and far-reaching reforms in education were conducted mainly based on western educational experience. These reforms are still in progress and are intended to continue gradually to update national education system in order to integrate into contemporary and fastly developing western education system.

As mentioned above, unfortunately, there are some out of date approaches in education which manifests itself mainly in inclusive education. In Azerbaijan vast majority of people including most policy makers claim that involvement of children with special needs in public schools will negatively affect lessons decreasing the quality of education and achievements. As a result of this conception public schools segregated all children with disabilities from general educational institutions. Special schools and kindergartens were allocated to children with special needs mostly in central cities. As for those living in rural regions they lived in special child institutions away from their families in order to get education. As a strict isolation institutionalization usually caused undesirable consequences for the children hampering their integration into society after graduation. The collapse of the Soviet Union made situation much worse. Financial aid for special education decreased dramatically and most institutions stopped functioning. Consequently, children and adolescents with disabilities underwent complete marginalization from quality education and society. Unfortunately, at the moment situation is not much better than before. Children and adolescents with disabilities have very restricted opportunities to be part of regular education process. People with disabilities are to attend specialized schools or kindergartens or alternatively receive education at home depending on the severity of the disability. Nevertheless, decision makers are becoming aware of the importance of involving people with disabilities into regular education process. An important initiative towards inclusive was Development Program (2005-2009) on organization of education of children with special needs in the Republic of Azerbaijan. The main objective of the Program was to protect rights of children with special needs to education, and provide equal opportunity for them to get education; to realize the transition towards inclusive education; to strengthen social protection of children under patronage of the

government; to involve all children with special needs of all categories into education. In comparison with the period of Soviet Union and early years of independence, nowadays legislations become more sophisticated relating to inclusive education, social and health services for persons of special needs. However, this sphere still demands more careful consideration to upgrade quality of education and other services for those who need special care. Theoretically, there are laws and regulations envisaging privileges for persons with disabilities, whereas in fact sometimes these laws are not implemented properly and this consequently prevents better inclusion.

The mission, of course, is not over by only focusing on laws and regulations. Another problematic issue is that there is a big gap in special education both in terms of experienced pedagogues familiar with progressive methodologies and indispensable teaching aids to educate the disabled. Teachers are regularly trained, but they can hardly be called professionally trained expertise since inclusive education, being quite challenging occupation, requires academic background. Obviously, the solution of this problem is a matter of time and more diligent attempts to be made by government in association with goodwill organizations. Actually, there are some local pilot projects initiating inclusive education in some schools which are organised by non-governmental organizations in collaboration with government. This case study will do research in one of these schools.

1.3 The Need for the Study

As mentioned above, inclusive education is rather a new phenomenon in Azerbaijan, and it is available only locally, mainly in capital city. There are many initiatives by nongovernmental organizations to spread IE all over the country, and to succeed in adopting new legislations which will promote IE in national level. Of course, it is a goodwill initiative which will also contribute social inclusion of people with special needs. But the issue is that the main factors for better academic performance of CSN should be considered profoundly one of which is teaching methods used for academic success of CSN in IE. There are of course supplementary factors such as necessary assessment tools and social interaction of CSN which will be addressed too. But these factors are of little use if a teacher suffers from professional incompetence. From this point of view it is critically important to find out how educators, with the help of their methodological approaches, manage to assist CSN to learn and develop within inclusive educational setting.

1.4 Research Problem and Sub-questions

The study will be guided by the main research question: *What is the teacher assistants' perception of the academic achievements of students with special needs?* In order to delineate the relevant aspects of main problem the study will apply a theoretical framework based on six categories:

1. Teacher assistants' (TA) understanding of academic achievements
2. TAs' understanding of inclusive education
3. TAs' teaching methods implemented in inclusive classes
4. Social interaction of CSN
5. Assessment tools used to evaluate achievements of CSN
6. Challenges of IE

Based on these categories six sub-questions will be generated:

1. How is the concept of inclusive education understood?
2. How is the concept of academic achievements understood?
3. What kinds of methods are used to raise academic achievements of CSN?
4. How are CSN involved into social interaction?
5. What kinds of assessment tools are used to evaluate CSN?
6. What are the challenges of teaching in inclusive education?

1.5 The purpose and beneficiaries of this study

The primary purpose of this study is to investigate academic achievements of CSN, especially those with intellectual disorders, in parallel with teachers' method. In more precise words, the study will try to look at what methods TAs apply for the sake of greater intellectual advance and academic achievements of CSN in IE. As a newly founded innovation, IE needs more

investigations and analyses. With more and more explorations of this sphere, new ideas and perspectives will come out which will, in its turn, facilitate IE to cater for all ability ranges. From this view, this study aims to penetrate academic accomplishment of CSN and also methodological factors that lie on the base of this accomplishment. Hopefully, this way the research will contribute to further extension of IE on national scale. Accompanying purpose of this study is to enhance the understanding of some basic concepts in IE, and consequently try to eliminate existing usual stereotypes about possibility and efficiency of IE in Azerbaijan. Hopefully, this study will also contribute to the enrichment of knowledge of teachers, TAs, school administrators and also empirical researches in inclusive education. The study will probably be of some benefit for parents, who do wish their children to be included into mainstream schools, enlightening them about academic aspects of IE. So there will be a wide range of beneficiaries who will take advantage of this study. It should be mentioned that the studied school and other schools which offer IE, and also organisations that run studies in IE will receive copies of this study which may be a useful reference for them.

1.6 Outline of the Thesis

This thesis includes five chapters. Each chapter has its topics and subtopics.

Chapter I- Introduction

In the first chapter the background of the study is presented. This chapter also includes historical background of inclusive education, along with the need, purpose and beneficiaries of the study, as well as research main question and sub-questions.

Chapter II - Theoretical Framework and Literature Review

Chapter two reviews relevant studies and theories related to IE, the concept of academic achievements, theories related to teaching methods and educational innovations, the role of, and collaboration between classroom teachers and teacher assistants, curriculum adaptation, and individual education plan.

Chapter III- Research Methodology

The third chapter deals with issues of research methodology. For this study a single case study design of qualitative approach have been chosen. This chapter also includes data collection tools, sampling procedure, data analysis, phenomenology, validity, reliability and ethical issues along with weaknesses and strengths of the research design.

Chapter IV- Data Presentation and Discussion

In the fourth chapter the findings will be presented and discussed. First, the chapter will provide the information about the studied primary school and participants. Then the interview data will be presented and discussed based on six categories. Next, the observation data implications based on the same categories will follow.

Chapter V- Conclusions and Recommendations

This chapter provides summary on previous chapters, evaluates strengths and weaknesses of the study, recommendations on general issues of IE and school practices for better academic achievements of CSN as well as implications for future studies.

1.7 Summary

This chapter tried to provide introductory remarks for further development of the thesis. The chapter offered general and historical background of inclusive education, and also attempted to state the problem which prevented fast and effective transformation to IE. Furthermore, the chapter presented the need, purpose and potential beneficiaries of this study. Research problem and sub-questions which have been generated based on six category framework as well as general outline of the thesis were included in this chapter too.

2 THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

This chapter concentrates on theoretical framework which deals with the main conceptual aspects of this thesis such as inclusive education, academic achievement, and theories related to teaching methods. The chapter starts with a brief understanding of integration and mainstreaming, and also international laws and declarations which initiated steps towards inclusive education. Next, follows a definition of inclusive education (IE) based on different literature along with international principles of IE. Furthermore, the chapter will introduce necessary concepts such as classroom management, academic achievements, the roles of, and collaboration between teachers and teacher assistants as well as co-teaching approaches. This chapter also intends to address theories such as social constructivist theory, social learning theory, and types of school engagement. Innovations in education and barriers for innovations will also be discussed here. Finally, different aspects of assessment, curriculum adaptation, and individual education plan will be introduced in this chapter. The above-mentioned concepts have not been chosen accidentally. In fact, these concepts will enable the researcher to effectively handle six category framework of the thesis, and refer to these concepts while presenting and discussing the data.

2.2 Integration

As an educational terminology "*integration*" has been used for a long period of time, and this education format still exists in some countries. Integration means the process of transferring CSN from special schools to mainstream schools (Thomas et al., 2005). This process urged the children "*to fit in*" to the classroom setting and school environment. But the overall results of the process were assimilation. However, unlike integration, the emergence of inclusion concentrated on transformation of profoundly rooted structural obstacles rather than assimilation. This transformation changed dominant interpretation of "*success*", "*failure*", "*ability*" and so on (Barton, 2003).

2.2.1 Mainstreaming

Though “*mainstreaming*” has been in common use in education for decades, this word, both as a concept and a term, has been defined very imprecisely. One early initiative to offer a model of mainstreaming outlined three elements that should characterize it: a continuum of types of services for students with disabilities, a reduction in the number of children “*pulled out*” of regular classes, and the increased provision of special services within regular classrooms rather than outside of regular classrooms (Smith, 1998).

2.2.2 Towards inclusive education

The history of inclusive education dates back to The Universal Declaration of Human Rights (1948) which emphasizes that everyone has the right to education. Moreover, the Standard Rules on the Equalization of Opportunities for Persons with Disabilities (20 December, 1993) emphasized rights of education children with special needs. Another globally significant agreement supporting CSN is UN Convention on the Rights of Persons with Disabilities. Article 7 of that convention decisively declared that parties shall take all necessary measures to ensure the full enjoyment by children with disabilities of all human rights (UN Convention, 2007). These three main declarations inspired special needs education which was the first step towards inclusive education. The root of inclusive education lies in integration, mainstreaming schooling, or normalization which was initiated in UK, USA and Scandinavian countries respectively. The above-mentioned phenomena recognized the rights of CSN to attend regular schools for education. However, none of these educational formats meant full inclusion of CSN into classroom process. In the course of development of special needs education the concept of inclusion substituted for all terminologies i.e., integration, mainstreaming with expectations that this term will mean education of CSN in regular classrooms, a sense of belonging, social interactions, and academic achievements (Odom, Buysse, and Soukakou, 2011).

The World Declaration on Education for All (EFA), adopted in Jomtien, Thailand (1990) defined general principles of IE: provide universal access to schools for everybody, and promote equity. This principles call for being proactive in predicting barriers in access to education and identifying recourses to eliminate these barriers. Inclusive education is a process which increases the opportunities and capacity of education to meet needs and interests of all learners, and consequently implement the goals of EFA. Taking universal

human rights into account the main doctrine of inclusive education should guide policy and practice in education. World Conference on Special Needs Education: Access and Quality, held in Salamanca, Spain, June 1994 gave major stimulus for IE. With more than 300 participants from 92 countries and 25 international organizations this conference made a huge jump towards IE with the change of basic policies to encourage the inclusion of children into education mentioning that special needs education - an issue of equal concern to countries of the North and of the South - cannot advance in isolation, and it has to form part of an overall educational strategy (Salamanca, 1994). The conference regular schools with inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all (Salamanca, 1994). This approach was affirmed by World Education Forum meeting in Dakar, April 2000 once again mentioning the right of people with special needs to education (UNESCO, 2000)

2.2.3 Inclusive education

Basically, IE means educating learners with special educational needs in regular education settings. However, IE is not limited to only placement. Rather, it means facilitating education of students with special needs with a whole suite of provisions which include curriculum adaptation, adapted teaching methods, modified assessment techniques, and accessibility arrangements. In short, inclusive education is a multi-component strategy or, perhaps, a mega-strategy (Mitchell, 2008). Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners and can thus be understood as a key strategy to achieve education for all (EFA). Inclusion is thus seen as a process of addressing and responding to the diversity of needs of all children, youth and adults through increasing participation in learning, cultures and communities, and reducing and eliminating exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children (UNESCO, 2009).

UNESCO policy guideline for inclusive education also justifies three main reasons for IE. First, educational justification: IE demands to develop ways of teaching that respond to different needs and weaknesses of children so that all children can take advantage of

classroom process. Second, social justification: inclusive education is a goodwill idea to change attitudes toward diversity, and form the basis for a just and non-discriminatory society. Third, economic justification: it is cost-effective to establish and maintain schools that educate all children together than to set up a complex system of different types of schools specializing in different groups of children (UNESCO, 2009). With its challenges IE requires not only special educators but also entire school staff to work together with a joint concern for the sake of full inclusion (Corbett, 2001). According to Thomas and Vaughan (2004) the target of IE is to value all children as equal for education so that they are able to take full part in social life of society in their later adult life.

For Mittler (2000) IE is a total reformation of education system in terms of pedagogy and curriculum. These reforms are viewed as intentions to welcome all diversities such as gender, nationality, culture, language, academic achievements, and disabilities. Skjørten (2001) also carries the same view stating that inclusion is an inclusive society schools, kindergartens, and other institutions welcomes people with social care. Here the essence of inclusion becomes integral part of humanism which argues that all forms of segregation contradict universal moral values. IE become and remains as a leading idea which has inspired a lot of educational institutions and educators to initiate projects to transform cultures and procedures in schools for diversity (Barton and Armstrong, 2007). Furthermore, Barton and Armstrong (2007) discuss the origin of IE arguing that as IE appeared in different social and historical settings it should be viewed as geographically situated concept, rather than universally shared value. However, there have been several huge initiatives on global scale to disperse IE all over the world as a useful means for the realization of inclusive society. The requirements of inclusive society are human right, equality, justice, and struggle against segregation. All these values play a central role in inclusive educational policy and practice (Barton and Armstrong, 2007). Briggs (2004) sees inclusive education as an instrument to improve schools not only in terms of academic issues but also in social aspects. For her, the principles of inclusion in schools should involve aims on how to transform schools into better places for both acting and learning.

2.2.4 International principles of inclusive education

International principles of inclusive education are defined in the Salamanca Statement and Framework for Action (UNESCO, 1994): 1. The guiding principle that informs this

Framework is that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions; 2. Special needs education incorporates the proven principles of sound pedagogy from which all children may benefit; 3. The fundamental principle of the inclusive school is that all children should learn together, wherever possible, regardless of any difficulties or differences they may have; 4. Within inclusive schools, children with special educational needs should receive whatever extra support they may require to ensure their effective education; 5. Special attention should be paid to the needs of children and youth with severe or multiple disabilities; 6. Curricula should be adapted to children's needs, not vice versa; 7. Children with special needs should receive additional instructional support in the context of the regular curriculum, not a different curriculum.

Of course, there are more principles apart from above-mentioned ones which are useful references and guides to design and realize inclusive curriculum. What generally features above principals is an emphasis on individual needs of children with disabilities, and the necessity to address to their needs within education policy and curriculum. As this is the case, a teacher/ special needs educator needs to explore factors which can mediate as professional tools in order not only to include all children in a class but also to teach all of them. In the search of success factors boosting inclusive education, Frederickson and Cline (2009) consider two relevant factors for successful inclusion: the quality of the program and the extent to which the general education system accommodates the academic and social needs of a diverse range of young people with disabilities and SNE. Lipsky and Gartner (1989) report on the National Study of Inclusive Education which reviewed about 1,000 school districts and produced seven factors for inclusion: visionary leadership; collaboration; refocused use of assessment; support for staff and students; funding; effective parental involvement; use of effective program modules and classroom practices.

2.3 Innovations in education

“An innovation is a planned change, which aims to improve practices.” (Skogen, 2001, p. 326) Dalin (1978) suggests that innovation means a deliberate attempt to improve practice in relation to certain desired objectives. For Dalin (1978) most studies of educational innovations are concerned with relatively small adjustments of old practices, replacing them by new methods, organizational arrangements or personal policies, and the innovations are

not concerned with a redefinition of objectives but rather with a redefinition of the operations of old objectives. Dalin also suggests (1978) a “typology of innovations” with the following dimensions: *Objectives and Functions*. Innovations are mainly concerned with the objectives and functions of the school in the broader social and economic context; *Organization and Administration*. Innovations mainly concerned with the organization and administration of the educational system; *Roles and Role Relations*. Innovations mainly concerned with role definition and role relationships which aim to improve relations between individuals and among groups; *Curriculum*. Innovations mainly concerned with the curriculum, its aim, content, methods, evaluations, material and internal organizations of instructions.

2.3.1 Barriers in Innovations in education

Any significant innovations in education will encounter several barriers. From the analysis of educational innovations, the following four categories of barriers have emerged (Dalin, 1978):

1. Value barriers: Some people regard value differences as varying relationships to the culture. The fact is that most educational innovations face the problem of value differences. Values conflicts become apparent when for example, racial integration or integration of the disadvantaged in the normal school are expected changes. Conflicts in values do not always emerge from the characteristics of the innovation itself. Conflicts can also manifest itself as a result of characteristics of the user population which is called “*user readiness*”. Readiness can be defined as the motivation and ability of the user to accept an innovation (Dalin, 1978). Diversity of values can appear as a concern when inclusive education is introduced as an educational innovation because it seems as a radical change in education, and the users, for example educators and even the parents of CSN, can possibly hesitate to welcome this innovation.

2. Power barriers: These barriers result from power distribution and changes of authority structure of the system. Major educational reforms usually bring some change of role relationship (Dalin, 1978). When it comes to inclusive education, power and duty distribution between class teachers and teacher assistants or special needs educators can become a barrier if mutual agreement cannot be attained. The disproportion in authority and responsibility distribution will inevitably influence the quality of IE negatively.

3. Practical barriers: Practical barriers are of more physical nature which appears in the form of time, resources and system barriers. Practical barriers may be of special interest in relation

to innovations since these factors have often been shown to slow down changes (Skogen, 2001). These kinds of barriers become a serious concern for IE because with its innovative design IE needs time to be adapted to education system. IE also requires overcoming resource barriers such as teacher trainings, curriculum adaptation and relevant teaching materials. Bureaucratic structure of the education system may be a system barrier for IE.

4. Psychological barriers: Sometimes people resist changes even when these changes do not challenge their values and there is not serious practical problem. This resistance simply comes from a psychological barrier (Dalin, 1978). In the case of IE, psychological barrier may become problematic issue of specific nature because it is rather abstract phenomena and it requires professional treatment.

2.4 Classroom arrangement

Effective educators consider classroom environment and make necessary adaptations in order to make sure that it facilitates academic and social needs of students (Friend and Bursuck, 2006). Since one of the essential preliminaries of inclusive classroom is suitable classroom arrangement that contributes to learning and development of all students including those with special needs, it is important to form a universal design so that all students have physical access to all materials and activities. Universal design for classroom environment includes principles that support creating classroom environment and instructions so that they lead to learning of all children (Samuels, 2007). For Burgstahler (2008), universal design means arranging classroom setting to be usable by all students without modifying and applying special design. Pielstick (1999) classified three aspects of the classroom environment: the physical, social and instructional. Sundstrom et al. (1990) also suggest that classroom arrangement that promotes informal and face-to-face interaction empower inter-member communication and higher level of integrated group activities. UN Convention on the Rights of Persons with Disabilities (2006, p. 4) defines universal design as *“the design of products, environments, programs and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. “Universal design” shall not exclude assistive devices for particular groups of persons with disabilities where this is needed.”* The Centre for Universal Design (1997) defines universal design as the design of products and environments to be usable by all people without the need for adaptation or specialized design, and suggests seven principles: equitable use, flexibility in use, simple and

intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use. Universal design is not only about access, but also about creating a more inclusive and learning-friendly environment in schools. With universal design principles schools enable all students to learn, develop, and participate (UNESCO, 2009.)

2.4.1 The Concept of Universal Design for Learning

“Universal Design for Learning (UDL) is a framework that addresses the primary barrier to fostering expert learners within instructional environments: inflexible, “one-size-fits-all” curricula. It is inflexible curricula that raise unintentional barriers to learning. The learners who are “in the margins”, such as the learners who are gifted and talented or have disabilities, are particularly vulnerable.” (Meyer and Rose, 2005, p.4). There are three principles of Universal Design for Learning: I: provide multiple means of representation (the “*what*” of learning); II: provide multiple means of action and expression (the “*how*” of learning); III: provide multiple means of engagement (the “*why*” of learning).

2.5 The concept of academic achievement

Student achievement forms the basis of almost aspects of education. Simply, achievement means “*the accomplishment of something*”, and in education that “*something*” generally refers to articulated learning goals. Although learning process takes place in various contexts, the focus of educators rests on learning that occurs in established instructional environments such as schools and classrooms where educators interact with students to help them achieve explicit knowledge and skills (Guskey, 2013).

For Fisher (1995) academic achievement refers to successful performance in schooling. Schooling, in its term, includes academic skills such as writing, reading, problem solving etc. which are integral parts of academic content. School environment is critically important for advanced educational performance. The level of achievements of CSN in IE depends on several factors one of which is teaching approach of an educator. Teaching strategy has appeared to improve academic success throughout all grade levels for both with and without special needs (Fisher et al.,1995). Other techniques which has boosted educational attainments of CSN are the usage of didactic materials in addition to textbooks in the sphere of social studies (Gersten et al., 2006), and using an inquiry-based approach to science with a

focus on varied ways of communicating learning (Pulincsar, Magnusson, Collins, and Cutter, 2001).

Armstrong (2006) proposes more detailed definition of AA: academic achievement is the totality of speech acts and written communications that view the purpose of education primarily as supporting, encouraging, and facilitating a student's ability to obtain high grades and standardized test scores in school courses, especially in courses that are part of the core academic curriculum. For Armstrong (2006), first and foremost in academic achievement is an emphasis on academic *content* such as literature, science, and math, and academic *skills* such as reading, writing, problem solving, and critical thinking. Armstrong (2006) gives secondary status to the study of history, the social sciences, and foreign languages, and considers some content and skill areas to be outside AA such as music, drama, art, physical education, vocational education, and “*life skills*” (e.g. personal care, and health education).

Some studies show that (Sanders and Horn, 1998; Bailleul et al., 2008, as cited in European Agency for Development in Special Needs Education, 2010) that a competent teacher can support and boost academic achievements of children more than other factors. A teacher who is equipped with necessary knowledge and experience is apparently a leading factor to provide equal opportunities and education for all within inclusive setting. Reynolds (2009, as cited in European Agency for Development in Special Needs Education, 2010, p. 7) suggests that a teacher’s joint features such as theoretical and empirical knowledge, teaching approach, and values can create a suitable learning environment for all.

2.5.1 Inclusion and academic achievements of children without special needs

The concern of IE is not only taking care of those who need affectionate care but also take care of those without disabilities so that they are not affected by participation of exceptional children. To look into this issue, several researches have been implemented most of which have resulted in favour of IE. Based on a pre-test – post-test research design Sharpe et al. (1994, as cited in Dyson et al., 2004) measured the influence of being educated in an inclusive classes on academic performance of children without special needs. The researchers investigated the two groups of pupils one of which included CSN and the other did not. The findings demonstrated that there were no great differences between the two groups. Moreover, the result of another study by Affleck et al., (1988, as cited in Dyson et al., 2004) also came to

conclusion that there were no huge differences between the achievements of two groups of pupils who attended inclusive and non-classes respectively. Schleien et al. (1994, as cited in Dyson et al., 2004) studied achievements in more specific areas, general science. The researchers concentrated on the impact of participation of children with severe disabilities on other pupils. The findings appeared in favour of inclusion showing that children without disabilities made statistically important progress in learning environmental education concepts.

2.6 Social Constructivist Theory

Vygotsky perceived disability as a socio-cultural developmental phenomenon. This is the peculiarity of his approach to disability. Vygotsky argues that disability appears as disability when it appears in the social context. Vygotsky decisively argued that the challenge of developing the higher psychological functions and personality of child with special needs can be implemented by providing really differentiated learning environment. Vygotsky proposed to set a learning environment in which children with disabilities are supplied with alternative ways of communication and development. By alternative ways Vygotsky implies psychological tools which are especially suitable for a disability.

Vygotsky's Social Constructivism has important implications for teaching methods in IE, and it is noteworthy for reference in inclusive education for several reasons. This theory is also called sociocultural theory which obviously indicates that it has dual concentrations: the history of human development and cultural tools which determine the direction of human development and give it specific shape. The core of the theory emphasizes that development of a human occurs in accordance with the dominant values of the culture and through interaction with it. This interaction involves a wide collection of cultural factors ranging from animate and inanimate beings such as people and artefact respectively. Vygotsky underlined the importance of tools/artefacts (languages, number systems, signs and symbols) claiming that they perform dual function: they serve as a means for integration of a child into culture and transform a child into that culture simultaneously. For Vygotsky, appropriation of cultural tools enriches mental capacities and leads a child to learn in cultural context and use the tools while interacting with others. In early ages a child depends on others, mainly parents. Parents usually lead a child's action guiding them what and how to do. Parents, as a salient representative of culture who transfer cultural values to a child, apparently interact with a

child through language. While guided by a speaking parent a child grasps information through interaction (an interpersonal process) and this interaction results in the assimilation of the language by a child (an intrapersonal process). Moreover, according to Vygotsky *“it is decisively important that speech not only facilitates the child's effective manipulation of objects but also controls the child's own behavior. Thus, with the help of speech children, unlike apes, acquire the capacity to be both the subjects and objects of their own behavior.”* (Vygotsky, 1978: p.26). Here language, which was called *“the tool of tools”*, appears as a mediating tool in interpersonal and intrapersonal processes.

As mentioned above, Vygotsky's sociocultural theory of development underlines that children learn through social interactions and their culture. These factors stimulate and boost children's development thorough social activities learning cultural values which determine the shape of children's cognition. Vygotsky insisted that cultural setting plays a crucial role in human development and no any human activity occurs out of culture. For Vygotsky, social interactions, which he named also as interpersonal processes, lead to internalization (an intrapersonal process) on later stages. The transaction from interpersonal processes to intrapersonal process consequently results in independent thinking. This transaction takes place with the help of more knowledgeable others within a child's zone of proximal development (ZDP). With more knowledgeable others Vygotsky refers to teachers, parent or peers who know more and help children learn new skills and information. Vygotsky proposed ZDP for the period of learning in which a child is not ready to develop on his/her own but is able to learn with the help of more knowledgeable others. In other words, ZDP is the distance between real and potential knowledge of children. ZDP also embraces concept of learning and development of Vygotsky's theory. In a short, the essence of this notion is that learning precedes development. The difference between the two levels of development (real and potential) is ZDP which is indicator of mental abilities. Learning takes place in ZPD and precedes a child's development (Vygotsky, 1978). Otherwise stated, learning triggers development through interaction in society which would be impossible if a child were segregated. Another central column of sociocultural theory of development states that human mind is mediated by tools and signs. Vygotsky thinks that there is not direct interaction with physical phenomena around us without usage of tools and signs as intermediary means which bear realities and characteristics of historical and cultural development. Vygotsky regards language as one of the important tools which mediates perfectly in the development process.

2.6.1 Sociocultural activities

Barbara Rogoff (2003) proposes sociocultural activity on three planes: participatory appropriation, guided participation, and apprenticeship which deserve consideration in terms of IE. Concerning apprenticeship Rogoff argues that rather than relying on explanations to organize their learning, apprentices may achieve necessary skills in picking up information through watching, sometimes even without actually carrying out the central features of the task. While participating in activities, apprentices attend to informative ongoing events which are not necessarily designed for their instruction. However, the presence and keen observation of learners may well be expected or encouraged so that they participate in, and learn through the realisation of the important business of the community and family life (Rogoff, 2003). Sometimes simple observation explains more than detailed instructions. In this case participation in class environment (inclusive education), where mediating tools such as language, teaching aids works better for especially mentally retarded children, should be promoted. Through helping peers to implement tasks and watching more knowledgeable peers' way of involvement into activities children with special needs will be indirectly instructed in interpersonal involvements. This process will at least appear as a good motivation for persons with disability to keep improving.

Rogoff generates the concept participatory appropriation (or appropriation) by which she means "*participatory appropriation is the personal process by which, through engagement in an activity, individuals change and handle a later situation in ways prepared by their own participation in the previous situation. This is a process of becoming, rather than acquisition.*" (Rogoff, 2003, p. 142). The central idea of "*appropriation*" implies that children (in our case children with disabilities) change while participating in activities and consequently become ready to deal with situation in following activities. For Rogoff, development and learning occur in participatory appropriation through interdependent relation in which partners' roles change frequently. Interdependent relation in a class will urge tactically children with disabilities to catch up with other children as much as possible. Furthermore, Rogoff states that cultural tools for thinking play an important role in cognitive development. Rogoff examines several cultural tools literacy, mathematics, and other conceptual systems describing their contribution to thinking.

2.6.2 Scaffolding and spiral curriculum

Scaffolding refers to the steps taken to reduce the degrees of freedom in carrying out some task so that the child can concentrate on the difficult skill she is in the process of acquiring (Bruner, 1978, p. 19) In other words, scaffolding means an active temporary support structure build around a child by a teacher or parent because while learning a child is dependent on more knowledgeable other (Vygotsky, 1978) who is more competent and skilled in certain area. As the child grows in knowledge and skill, the support is gradually reduced and totally removed when the child becomes an independent learner.

Bruner (1960) believed that a child needs to learn main principles of a subject rather than master facts or data. Bruner proposed learning through inquiry with the guidance of an educator who accelerates a child's thinking, and insisted that grasping basic ideas intuitively should be at the base of learning at early ages. And later, the curriculum should revisit basic ideas repeatedly and expand upon them until a child has a complete understanding. Bruner called this process the "*spiral curriculum*" and advocated that organizing learning in a spiral way helps a child to organize ideas in an accessible and usable structure (1960). The spiral curriculum has some benefits and implications for IE context. First, the knowledge and skills are reinforced with repeated learning. The spiral curriculum also enables a child to learn in a logical order, from simple to complicated ideas. Moreover, in a recursive learning process, a child has a chance to apply previously gained knowledge to later activities.

2.6.3 Social Learning Theory

Social learning theory by Bandura (1977) states that observation, modelling and imitation are important means for cognitive and behavioural learning. Social learning theory suggests that academic and behavioural learning happens through four steps: attention, retention, reproduction, and motivation. The implications of this theory for IE propose that CSN can observe other children and teachers, and learn and develop both academically and behaviourally by imitating them. "*Social learning focused on socialization, the process by which society attempts to teach children to behave like the ideal adults of that society.*" (Miller, p.233, 2011)

2.6.4 Cooperative learning

Cooperative learning is defined as groups of learners working together to solve a problem, to complete a task, or accomplish a common goal (Artz and Newman, 1990). The idea of this model is to involve all students in teamwork for the implementation of a task through interdependent and cooperative collaboration. Studies suggest that the effects of cooperative learning proved to be an efficient tool to increase academic achievements of students with and without disabilities. Comparing cooperative and individualized instructions, studies came to conclusion that cooperative learning produces better academic achievements for all for all students in a classroom (Stevens and Slavin, 1995). Moreover, cooperative learning promotes sense of belonging for all students (Johnson et al., 1984).

2.6.5 Participation and engagement

According to Finn (1993) there is consistent and close correlation between school engagement and academic achievements of students which manifests itself in constant attendance and regular participation in extra-curricular activities. In other words, the more participation in classroom process is, the more academic achievements are. Finn et al. also (1991) emphasize that participation at early ages in schools is in positive relations with performance at later years. Participation in educational activities is indicated by diverse forms of student endeavour that display attention and interest in schooling as well as involvement in school activities (Wehlage et al, 1989). The school engagement does not take place in a vacuum. With the educational activities happening within classroom the school context has a vital role in stimulating student engagement and development. School engagement is quite a broad understanding. There are behavioural engagement, emotional engagement and cognitive engagement (Fredricks et al., 2004).

2.6.6 Behavioural engagement

Behavioural engagement has three definitions: the first definition involves positive conduct like classroom rules and norms. The second definition entails learning and academic assignments along with behaviours like concentration, effort and participation in discussions. The third definition means participation in extra-curricular activities (Fredricks et al., 2004).

Finn (1993) also suggests four definitions of behavioural engagement: level one appears in early school years which requires being attentive, prepared and responsive; in level two students become active participants and take initiatives for interaction with peers and teachers; in level three a student is aware of difficulties and is sure of supportive environment in classroom. In such cases students show initiative-taking behaviours to ask for assistance when academic difficulties appear; in level four students participate in important issues of school administration like academic aims, school discipline etc. According to Finn (1993) the realization of the last level is not always possible but it can especially be functional for at-risk students.

2.6.7 Emotional engagement

Emotional engagement is students' affective behaviours like sadness, happiness; interest etc. in the classroom. Emotional engagement can be assessed by the degree and type of emotional reactions (positive or negative) to a teacher, classmates and school. Positive emotional engagement is considered to create strong relations between a student and school and positively impact a student's desire to study while negative emotional engagement works vice versa. (Connell et. al, 1991). Finn (1989) describes emotional engagement as identification with school, and introduces identification sense of belonging and value.

2.6.8 Cognitive engagement

Cognitive engagement is described as a student's effort in learning, ambitious approach to educational tasks and eagerness to learn new skills and understand difficult ideas (Fredricks et al., 2004). Another definition suggests that cognitive engagement entails initiative in hard work and positive attitude to failure (Connell et. al, 1991). Newmann et al. (1992) et al. understands cognitive engagement as psychological investment in learning knowledge and skills.

2.7 Assessment

Assessment is one of the central and leading factors in educational process. Being an integral part of teaching and learning process assessment serves effective and fast learning of students in classroom. Classroom assessment includes all kind of decision-making methods about

developments and regressions in academic performance of students (Linn and Miller, 2005). Accurate assessments lead to right decisions which facilitate students' progress. In contrast, poor assessment can hinder and even cause reverse effect in progress. Another reason that makes assessment so critical is that assessment assists a teacher to fit instructions to the level of students' skills, monitoring students' achievement, modifying instruction if needed, and trying hard to enhance student competence (Salvia et al., 2013).

2.7.1 Assessment data collection

There are several sources of data for assessment. One of them is observation which is categorized as non-systematic or systematic observations. In non-systematic observation, the observer simply watches an individual behaviours, characteristics, and personal interactions. In systematic observation, the observer observes one or more precisely defined behaviours. Recollection is another course gathered from the people who are familiar with the student can be very useful in providing information through interviews and rating scales. Student records demographic information, previous test scores, attendance data, and teacher comments about students behaviours and performance. Another source of data is professional judgments. It is a common and desirable practice in assessment which is gained by referring a student (Salvia et al., 2013).

2.7.2 Inclusive assessment

The report *Assessment in Inclusive Setting* developed by European Agency for Development in Special Needs Education (2007) defines inclusive assessment as an approach to assessment in mainstream settings where policy and practice are designed to promote the learning of all pupils as far as possible. The overall goal of inclusive assessment is that all assessment policies and procedures should support and enhance the successful inclusion and participation of all pupils vulnerable to exclusion, including those with special educational needs.

2.7.3 The principles of inclusive assessment

To achieve the goals of inclusive assessment defined by European Agency some factors need to be considered proposed in *Assessment in Inclusive Setting* (2007). One of the first and foremost factors is the principles underpinning inclusive assessment: all assessment procedures should be used to inform and promote learning for all pupils; all pupils should be

entitled to be part of all assessment procedures; the needs of pupils with special educational needs should be considered and accounted for within all general as well as special educational needs specific assessment policies; All assessment procedures should be complementary and inform each other; all assessment procedures should aim to ‘celebrate’ diversity by identifying and valuing all pupils’ individual learning progress and achievements; inclusive assessment explicitly aims to prevent segregation by avoiding - as far as possible - forms of labelling and by focusing on learning and teaching practice that promotes inclusion in a mainstream setting.

2.7.4 The focus of inclusive assessment

Assessment in Inclusive Setting (2007) also suggests the focus of inclusive assessment: the purpose of inclusive assessment should be to improve learning for all pupils in mainstream settings; all assessment procedures, methods and tools should inform teaching and learning and support teachers in their work; inclusive assessment may include a range of assessment procedures that fulfil other purposes in addition to informing teaching and learning.

2.7.5 The methods used in inclusive assessment

Discussing some important aspects of inclusive assessment methods Assessment in Inclusive Setting (2007) declares that a wide range of assessment methods are necessary in inclusive assessment in order to make sure that it covers wide areas including non-academic as well as academic subjects, and along with educational environment any home-based or environmental factors that influence a pupil’s learning should be taken into account. Assessment in Inclusive Setting (2007) also mentions that inclusive assessment methods report not only on the outcomes of learning, but also provide teachers with information on how to develop the process of learning process for an individual pupil or groups of pupils in the future.

2.8 The role of a classroom teacher

As a result of the inclusive education movement, classroom teachers have become significantly more involved in the education CSN. The attitude of the class teacher towards students has a major impact on the success of all students, particularly those with special needs. Classroom teachers must be able to perform different skills, such as the following:

acting as a team member on assessment and IEP committees; being innovative in providing equal education opportunities for all students, including CSN; and individualizing instruction for CSN; advocating for CSN. To sum up, classroom teachers control educational programs for all students (Smith et al., 1998).

Studies suggest (Sanders and Horn, 1998; Bailleul et al., 2008, as cited in European Agency for Development in Special Needs Education, 2010) that the quality of the teacher contributes more to learner achievement than any other factor such as class size, class composition, or background. Reynolds (2009, as cited in European Agency for Development in Special Needs Education, 2010, p. 7) says that it is the knowledge, beliefs and values of the teacher that create an effective learning environment for all students, making the teacher a critical influence in education for inclusion and the development of the inclusive school. European Commission Communication Improving the Quality of Teacher Education (2007) states that teachers need to have the full range of subject knowledge, attitudes and pedagogic skills to be able to help young people to reach their full potential by responding to specific needs of each student applying a wide range of teaching strategies. Moreover, in the same document it is highlighted that Higher Education institutions have an important role to ensure that their teacher education courses are based upon solid evidence and good classroom practice (European Commission Communication Improving the Quality of Teacher Education, 2007, p. 15). Following a survey of primary school teacher training Franzkowiak (2009, as cited in European Agency for Development in Special Needs Education, 2010, p.27) recommended that introductory courses on inclusive education should be mandatory for all teacher education students, and bachelor and masters courses should include inclusive education and combined degree programs. Moreover, regular trainings are very important for teachers. Studies conducted by Avramidis et al. (2000) indicate that teachers who participated in trainings of high quality feel to be more competent in teaching inclusive classes. With professional trainings teachers get detailed information and necessary skills in inclusive education, and consequently get self-confidence in teaching profession which increases their eagerness to take responsibilities of a classroom with diverse needs (Opdal et al., 2000).

2.8.1 The role of a Teacher Assistant

Students with disabilities who attend in inclusive schools are now likely to be allocated a TA for further support to benefit from education with their peers. So the relevant response to

inclusive education is to make sure that there is an extra teacher available in the classroom whose role is important for success of inclusive practice (Lacey, 1999). Farrell et al. (1999, as cited in Vincett et al., 2005) clearly present the distinction between the role of TAs and teachers. Teachers plan the programs, monitor their success, hold review meetings, and liaise with parents. And the responsibility of a TAs simply is to implement the programs under teachers' guidance. And TAs support students in mainstream classes by keeping in contact with those who need help, but not sitting with a student. Support cannot be only in favour of students with special needs. Rather, it must support class teachers (Hrekow and Barrow, 1993). For Kennedy et al., (1975) it is not the responsibility of a TA to plan activities, organize or manage classroom. Their performance is restricted to only encouraging and helping student when they need support. Since TAs are mainly allocated to work specially with CSN, some problems emerge from this practice. First, students become dependent on TAs both socially and academically. Moreover, this practice causes identification of such students as different, and consequently can make a barrier for a class teacher to know students with special needs better in order to plan and prepare curriculum activities for their inclusion. And lastly, this practice prevents the whole class students from benefiting support of TAs (Jones, 1987). To avoid these negative effects of classroom support by TAs a number of principles should be followed. First of all, the instruction provided by TAs should be supplemental, but not primary. Second, TAs should work on professional plans prepared by a class teacher or a special educator. Third, teacher assistants should get professional trainings. Finally, TAs should be under regular monitoring and supervision of qualified experts (Causton-Theoharis et al., 2007). The fact is that the successful inclusion of CSN does not normally happen without assistance, and to create effective assistance school personnel have to work in cooperative methods to provide appropriate programs to all students (Smith, 1998).

2.8.2 Key principles of teacher – TA collaboration

To attain a better inclusive classroom Vincett et al. (2005) suggest key principles for effective teacher-TA teamwork. The main principles are as follows: senior manager demonstrates commitment to teamwork; classroom teams are clear that they are a team and values positive interdependence; team members have a strong role in defining effective practice for their classroom teams; teachers and TAs have opportunities to reflect on, share and agree their common aims, goals and roles within the team; TAs are allocated to work with a limited number of teachers so that they can spend time getting to know them; classroom team have

good communication system; TAs and teachers have time to plan and evaluate together; meetings are carefully structures, with clear roles and opportunities for all to give views, regardless of status; time for teachers and TAs to meet outside of teaching time is accounted for in pay structure and cover costs; teacher and TAs participate in at least some joint trainings.

2.8.3 Co-teaching in IE

Recent trends in inclusive education and legislations promoting access of children with exceptionalities to public school have brought “*co-teaching*” to the focus of attention which is introduced as a means for improving effective instructions in IE (Cook and Friend, 1995). Co-teaching is implemented to increase and support the inclusion of children with disabilities, and usually includes one general education teacher and one special needs education teacher (Mastropieri and Scruggs, 2006). One of the advantages of co-teaching is that specific viewpoints and approaches of general and special educators are merged to reproduce unique teaching strategies that would not occur if one of them were absent (Friend, Reising, and Cook, 1993).

Cook and Friend (1995) give the following definition for co-teaching: two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space. Moreover, Cook and Friend (1995) elaborate on four key components of this definition. First one is that co-teaching involves two or occasionally more educators, one of which is a general education teacher and the other is a special educator. The second part of our co-teaching definition specifies that the educators deliver substantive instruction which means that that both professionals are involved actively in the instruction of students. Third, the educators teach a diverse group of students, including students with disabilities. The last component clearly indicates that in co-teaching the instruction is delivered primarily in a single classroom or physical space. Still it does not preclude the possibility of occasionally separating groups of students for instruction that involves considerable activity with possible high levels of noise and distraction.

2.8.4 Co-teaching approaches

Cook and Friend (1995) also outlined five co-teaching approaches: One Teaching One Assisting where one teacher takes a clear lead in the classroom while the other observes

students assisting them as needed; Station Teaching where teachers divide instructional content into two or more segments and present the content at separate locations within the classroom; Parallel Teaching where the teachers plan the instruction jointly, but each delivers it to a heterogeneous group consisting of half the class; Alternative Teaching where one teacher works with the small group while the other instructs the large group; Team Teaching where both teachers share the instruction of students. Cook and Friend (1995) argues that all these approaches have variations depending on the subject, age of the students, and none of the approaches is best or worst which can be used alone or with another. The particular model should be based on the needs of students, curriculum knowledge of teachers, and if necessary, grouping decision (Andeson et al., 2013).

2.9 Curriculum Adaptation

Curriculum adaptation is an open-ended progressive process that adapts stipulated program to meet the demands of students with special educational needs. It facilitates the teaching process to welcome needs and interests of all students with various abilities and disabilities. To build a sound and full relation between individual and class curricula a teacher/special needs educator needs empirically tested model which fills all the gaps between the two curricula.

Curriculum Relation Model by Johnsen (2012) reflects important aspects for meaningful and individually adapted curriculum. In this model the main areas are: *the pupil/s, educational intentions, educational content, methods and organization, assessment, communication, care, and context/frame factors*. The seven aspects are embraced by contextual aspects within which the inner activity of schooling is situated (Johnsen, 2012). These aspects are elaborated below.

The pupil/s: Fundamental shift from discipline-centred educational traditions towards child-centred education is a prerequisite for inclusive education. Discipline-centred education, with its overall focus on teaching in accordance with the logic and content of the discipline, (Johnsen, 2012) leaves some pupils, most possibly pupils with special needs, out of attention. Consequently, because of over-loaded content of schooling they cannot catch up with the others in the class. Whereas, child-centred education dedicates itself to serving each pupils individually.

Intentions: Intentions function as a locomotive leading teaching-learning process towards development. Johnsen (2012) argues that the intention or aim to teach a student with special educational needs cannot be attained at one step at all. Therefore this process should be divided into certain periods and be taught on regular base.

Content: Intention of teaching-learning process is achieved via content. Time period and quality of teaching considerably depends on content. Jonsen (2012) cites general quality criteria for a learning activity by Bjørndal and Lieberg (1978:116-118) which are noteworthy in terms of planning individually adapted curriculum: consistency with the whole teaching program; adequacy compared to goals; variety and multiplicity; adaptive to individual pupils and group; balancing and cumulative; relevance and meaning; open to optimal integration with other learning activities; open to the pupils' choices.

Teaching methods and classroom organization: Teaching method is a way of effective instructions and productive use of content towards success in classroom activity. A teacher should approach method and content as two legs carrying teaching-learning process ahead. Serious drawback in either will cause the process lag behind. Considering varying individual needs a teacher needs to realize various methods accordingly.

Assessment: Johnsen (2012) suggests that as an effective method of individual assessment a teacher may refer to the following general examples of methods and approaches: interviews and conversations; questionnaires; pupil's self-evaluation; assessment as part of mediating; achievement tests; specific mastery or ability tests.

Communication: Communication is an important phenomenon in which language manifests itself most effectively and language or speech in its turn is a vital mediator for learning and human development. In an inclusive class environment communication is a means for a teacher to build friendly relations with pupils and encourage all pupils into active interrelation through communication. Social interaction promotes self-confidence and willingness to deal with learning process eagerly.

Care: Jonsen (2012) argues that care means to see and support each pupil as a unique individual with her or his personal possibilities and needs. In a class environment showing care such as smiling, appreciation, patting, eye contact with each pupil and respect them will

boost mutual relations with pupils and increase their sympathy for learning and classroom activities.

Frame factors: Johnsen (2012) mentions that as an institution the school depends upon and operates within a framework consisting of several frame factors, such as legislation, economic and human resources and a number of physical, social and cultural aspects.

2.10 Individual Education Plan

An Individual Education Plan (IEP) is a written document developed for a student with special educational needs; it describes the student's current needs, performance and goals for the school year, the particular special educational services to be delivered, and the procedures by which outcomes are to be evaluated (Kirk et al, 2012). The IEP also assists teachers monitor the student's development and provides a framework to deliver information about student's achievements to parents. The IEP is updated regularly to note any changes in student's education program that appear to be necessary after the assessment of student's annual progress. IEP is prepared through a collaboration of the school, parents, the student (where appropriate) and other relevant personnel or agencies. IEP refers to adapted aspects of educational program and focuses attention on priority needs. Only certain aspects of the curriculum which arises from assessment need to be modified. The amount of modification and support depend on individual learning needs of CSN. IEP is an effective educational tool to support CSN to learn to leave school with the skills necessary to participate to the level of their capacity in an inclusive way in the social and economic activities of society and to live independent and fulfilled lives (NCSE, 2006).

2.11 Summary

This chapter tried to delineate main points which comprise theoretical framework of the thesis. In order to carry out a comprehensive study of the intended phenomena, this research will apply a wide range of categories. And based on these categories, the current chapter discussed relevant concepts. Regarding the concept of academic achievement, relevant literatures were reviewed for accurate and full definition. Regarding the inclusive education, definitions from various literatures along with the international principles of inclusive education were presented. As for the teaching methods theories such as social constructivist

theory, social learning theory, cooperative learning, and types of school engagements were discussed. These theories also shed light on the concept of social interaction. The concept of assessment was reviewed on a large scale in terms of general assessment approach, principles, focus and methods of inclusive assessment proposed by European Agency for Development in Special Needs Education (2007), and assessment data collection sources. The challenges of IE were reviewed in the context of innovations in education and barriers preventing these innovations. Moreover, this chapter included the roles and responsibilities of a classroom teacher and teacher assistants, collaboration and co-teaching approaches, and curriculum adaptation. Above-mentioned points of theoretical framework will guide the thesis, and the researcher will refer to this framework for the discussion of data

3 RESEARCH METHODOLOGY

3.1 Introduction

This chapter offers detailed and explicit perspective on the research methodology of the study. This research is underpinned by qualitative research design which is considered to be suitable and relevant approach to address the phenomena of the research. Moreover, the thesis will also focus on validity, reliability and ethical issues along with weaknesses and strengths of the methodological aspects.

3.2 Research design

Qualitative research is used to get an explicit understanding of the research questions which involves the perspectives of study participants and the context which they are in (Hennink et al., 2011). Referring to the viewpoints of the research participants to understand the nature of educational process qualitative approach in educational researches tries to explain what happens in educational settings (Burton and Barlet, 2009). Qualitative research also seeks to understand participants' lived experiences from their own point of view (emic), and recognize the subjectivity of participants and researcher (Rubin et al., 2005). In this study the qualitative approach will seek to understand the efficiency, complexities and challenges of education of CSN in ordinary schools by looking into level of academic achievements and social performance of CSN, teaching and assessment approaches in inclusive settings and other important aspects of IE. Effective qualitative approach instruments, more precisely a case study design, purposeful sampling procedure, interviews and observations as data collection methods and qualitative data analysis will support this qualitative research.

3.3 Phenomenology

Phenomenology is the study of the world as it appears to individuals when they lay aside the prevailing understandings of those phenomena and revisit their immediate experience of the phenomena. In doing a phenomenological study, the researcher is intimately connected with the studied phenomena comes to know himself within his experiencing of these phenomena. Phenomenological research seeks to detach the researcher's self from the phenomena through

the use of objective methods of data collection and analysis. Phenomenology as a philosophical movement was founded by Edmund Husserl who believed that the starting point for knowledge was the self's experience of phenomena (Gall et al., 2007). Husserlian phenomenology emphasizes bracketing which suggests that a researcher should put personal assumptions and biases aside. The purpose is to keep already known facts away from participants' view in order not to impose researcher's assumptions the data collection process (Gearing, 2004). Phenomenological research has several advantages. First, it can be used to investigate a wide range of educational phenomena. Second, the interview process is wide-ranging and it is capable of detecting many aspects. Lastly, the procedures of phenomenological research are relatively straightforward (Gall et al., 2007).

3.4 Case study design

Achievements of children with disabilities depend on certain factors such as type and severity of disability, teaching approaches, methods and aids of a teacher. And these factors probably vary from school to school and therefore it is almost impossible to generalize results from one or two situations. For that reason qualitative case study is considered to be appropriate and effective inquire in order to find out how well children with disabilities are educated in inclusive class in a certain school. Case study is effective because it allows getting into the depth of the phenomena and understanding it. *“Case study design represents a basic form of qualitative research. It can be used to study any topic or type of phenomenon, with the entire range of data collection and analytic methods used by qualitative researcher. We define case study research as (a) the in-depth study of (b) one or more instances of a phenomenon in its real-life context that (d) reflects the perspective of the participants involved in the phenomenon.”* (Gall et. al., 2007, p.447) Since the purpose is to understand details of low or high academic performance of children with disabilities in an inclusive class it is relevant to refer to case study as this method provides a deep insight into the phenomenon through clear description and explanation.

A case study is done to shed light on a phenomenon, which can be a process, event, person, or other item of interest to the researcher. (Gall et. al., 2007) As for the phenomenon to be investigated in this research, it is the academic achievements of children with special needs, more precisely mental disabilities. The case to be studied in this research is a primary school which offers an inclusive education for children with mental disabilities. Unit of analysis is

the aspect of the phenomenon that will be studied through one or more cases. (Gall et. al., 2007) In current research unit of analysis includes three inclusive classes in which children with mental disabilities are educated. Another important aspect of the case is the focus on which data collection and analysis concentrates. The focus of the case study can be a specific topic, a particular thesis or proposition to be argued and defended, or a theme, which is an overarching concept or theoretical formulation that has emerged from the data analysis. (Gall et. al., 2007) It is apparent that teaching methods of the educators play a significant role for better academic performance and results of children with disabilities. Taking this fact into consideration the focus of this research concentrates on teaching methods which have direct effect on academic achievements of children.

3.4.1 Purpose of a Case Study

Case studies are generally conducted for one of three purposes: to produce detailed descriptions of a phenomenon, to develop possible explanations of it, or to evaluate the phenomenon. A case study which aims at description, tries to depict a phenomenon and conceptualize it focusing on various phenomena (Gall, 2007 p.451). The purpose of this study is the detailed description of a phenomenon.

3.4.2 Strengths and Weaknesses in Using Case Study Design

Some authors (Gall et al, 2007; Springer, 2009) mention that the primary advantage of case study is that it supplies abundant information due to the focus on just one case. In a case study a single case produces detailed and a thorough knowledge of a case and participants' perspective and consequently enlarges the understanding of the phenomenon. In this research case study provided an in-depth look at the main elements of the case, and implementation of thorough analysis of all the aspects of the case. For Gall et al., (2007) another advantage of a case study is their emergent quality which means that as a researcher collects data and gain insight into a particular phenomenon, they can change the focus of the case, adopt new data-collection methods, and frame new questions. But on the other hand, a case study does not allow generalizing the result of a single case if there is not a case of similar characteristics (Gall et al, 2007; Springer, 2009). Also, a case study can be labour-intensive (Gall et al., 2007).

3.5 Sampling Procedure

This study deployed purposeful sampling which assumes selecting cases such as events, groups, individuals that are likely to be “*information-rich*” with respect to the purpose of the study (Gall et al., 2007; Cohen et al., 2007). The main reason why purposeful sampling was employed in this research is that there are few schools offering inclusive education in Azerbaijan. One out of these schools, which has been educating CSN continuously, was selected on the assumption that this school would most likely provide rich data for analysis. Purposeful sampling was also employed when selecting participants because the more experienced the participant is the more information he/she can give. To find a suitable sample the researcher referred to the website of the Ministry of Education for the list of inclusive schools. Later, to select most relevant school the researcher contacted an officer in the ministry who is in charge of inclusive schools, and asked for recommendation. Based on recommendation the researcher visited four schools and after careful and comprehensive deliberation the school, which has constantly accommodated CSN for about ten years, was picked as a sample. As for the well suited participants, the researcher consulted the principal of the school and came to a mutual agreement on the participants based on the criteria of the researcher. Three participants were chosen and at least two interview meetings with each participant were scheduled in order to reach the point of “*saturation*”, the concept which is explained in terms of “*when no new data are emerging*” (Corbin and Strauss, 2008). The participants were provided with interview guide so that they could get familiar with the content of the interview, as well as with an informed consent which explained procedures, topics, possible future perspectives of the research.

3.6 Research method

As for the research method, the case study will adopt triangulation, a multiple methods of data collection which will include interview and observation to extend confidence in its validity and improve the quality of the data and accuracy of the findings. “*Use of multiple methods to collect data about a phenomenon can enhance the validity of case study findings through a process called triangulation.*” (Gall et. al., 2007, p.460)

3.6.1 In-depth interview

Interviews are used in educational researches to gather data about phenomena such as opinions and values which are impossible to observe directly. Interviews are also used to collect data about observable data when interview appears more convenient than observation. Interviews mostly consist of oral questions and oral responses and it is the interviewer who mainly keeps the response situation under control. The main advantage of the interview is its adaptability. With an interview a proficient interviewer can earn participants' trust, thus obtaining necessary information (Gall et al., 2007). This study will refer to in-depth interviews as this type of interview seeks participants' personal stories, their perceptions and approaches, and their experience (Hennink, 2011). At least three teachers will be interviewed to get detailed answer to main question and sub-questions, and for this purpose key informant interview will be adopted. *"In a key informant interview, the interviewer collects data from individuals who have special knowledge or perceptions that would not otherwise be available to the researcher. Key informants often have more knowledge, better communication skills, or different perspectives than the other members of the defined population."* (Gall et. al., 2007, p.243) For the implementation of the interview, semi-structured interview was deployed which involves a series of structured questions and then probing further with open-form questions to obtain additional information (Gall et al., 2007).

3.6.2 Interview Guide

Interview guide involves a set of topics to be explored with each interviewee. Interview guide is used on the assumption that there is common information to be obtained from each respondent with certain questions minimizing the possibility of bias (Gall et al., 2007). In the interview guide of this research predetermined sequence and wording of the same set of open-questions will be used since these kinds of questions urges interviewee to contribute detailed information, and it also let the interviewer ask probing questions for follow-up (Appendix 1).

3.6.3 Conducting the Interviews

The interviews process was rather unusual experience for the researcher. Each interview lasted about an hour and all of them were tape-recorded. Besides, the researcher accompanied the tape recording with note-taking for key words in order generate follow-up questions. First interviews with each participant were conducted three consecutive days and with those

interviews it turned out that it was necessary to have another interview with each respondent since there was irrelevant information for the purpose of the study. Since the interviews were held after tiring lessons, the participants seemed to be exhausted after a long conversation. Therefore it was considered that arranging another interview would be a logical decision to fill the gaps in data. Besides, a time period in between the interviews would enable the researcher to transcribe the first three interviews and examine them for missing data. The second interviews with each participant were held after two weeks on the same day and those interview meetings lasted much shorter, about twenty minutes.

3.6.4 Informal conversational interview

“The informal conversational interview relies on the spontaneous generation of questions in a natural interaction because the conversation appears natural, the research participants may not even realize that they are being interviewed.” (Gall, 2007, p.247). Informal interviews develop in an unstructured way without predefined questions. This kind of interview enables the researcher to be flexible and guide the conversation to where it is appropriate. In this study the researcher had informal conversations with the teacher of the observed classes to get information about their attitude and perception on inclusive education. These informal interviews were not recorded, but the researcher took notes of important points.

3.7 Observation

An ideal complementary data collection technique to interview is observation which is conducted in natural contexts helps fill gaps in data collection which may occur in interview. In contrast to interview observation allows a researcher to formulate their own version of what is occurring and then check it with the participants. Observation provides a more detailed description of the phenomenon than would be possible by just referring to interview. Observation provides an additional source of data for verifying the information gained by other methods (Lodico, et al., 2010). So to take full advantage of observation, the researcher plans to observe the whole class period with close attention to how teachers implement their methods, how teachers encourage peer collaboration, how often and how effectively teachers use didactic materials for the favour of academic achievement of students with special care, and how teachers assess students with special needs. Observation will allow the researcher to see if those methods are able to include and encourage all students into academic

performance. With observations the researcher will see how class setting is organised to suit needs and interests of students with special needs, and what barriers teachers face in inclusive classes. In order to concentrate on every detail of teaching process and grasp subtle nuances within class period the researcher will act as complete observer who maintains a posture of independence from setting being studied (Gall et. al., 2007).

3.7.1 Recording the Observation

Since video recording was not allowed in the classroom, an observation guide form (Appendix 2) was used to take notes of pre-defined points. The observation form included descriptive and reflective notes. Descriptive notes were for describing activities, whereas reflective notes were for reflection and consideration on the process. Observations were conducted after all interviews were transcribed and analysed. This practice enabled the researcher to reflect on which points should be focused in detail. The purpose of using observation was to understand the investigated phenomenon from the perspective of the researcher (etic perspective). Therefore the researcher included the six categories of the theoretical framework with one additional section, classroom arrangement, in the observation form in order to collect data accurately for each category. Each participant was observed during two lessons each of which lasted 45 minutes.

3.8 Data collection process

Data collection process will adopt theoretical sampling method which is based on concepts or themes derived from data. This method helps the researchers discover the concepts that are relevant to this problem and population and allows researchers to explore the concept in depth. During theoretical sampling researchers take one step at a time with data collection, followed by analysis, followed by more data collection again until a category reaches the point of “*saturation*”, the concept which is explained in terms of “*when no new data are emerging*” (Corbin and Strauss, 2008).

3.8.1 Challenges in data collection process

The main challenge in data collection emerged while conducting observation. The reason was that students with special needs in primary school did not attend school every day. As a rule,

together with teacher assistants parents arrange a schedule for school attendance of CSN two of three times a week. The issue is that even in such cases CSN fail to keep to their schedule and miss classes. Therefore the researcher hesitates to confidently say that there are considerable observation data to support or gauge the validity of interview data. Another challenge was that the respondents talk about out of topic issues in the interview a lot. Very often they went astray from the interview questions and failed to provide concrete and relevant answers. Those unwanted information caused another barrier in the data analysis process which took longer time. However, both the interview and observation process went smoothly and the researcher managed to get relevant data addressing to the core of the research purpose.

3.9 Data analysis

It is important to choose the right strategy for data analysis since it will let you treat the evidence properly and achieve correct analytic conclusions (Yin, 1994). With data analysis all data collected are interpreted so that they are easily understood. Each interview and observation data collected will be transcribed soon after the process. The transcription of interview will be done through listening to each and every word so that not a single one is missing as each word bears critical contribution to further analysis. Tones and intonations and even the emotions of the interviewees noted down during the interview will be given special attention as they define meaning and intention of words and sentences seriously.

3.9.1 Phenomenological method of data analysis

Phenomenological method is a descriptive and qualitative study of experience that attempts to conceptualize the process and structure of mental life including the meaningful world that is lived through experience (Wertz et al., 2011). The basic principle of phenomenological method of analysis is that the researcher remains true to facts and the way they appear (Husserl, 1960). To achieve this purpose Giorgi (1985) designed phenomenological approach to data analysis. Central tenets to Giorgi's phenomenological method are as follows: quality of data, rather than quantity is emphasised; the participant is a fellow human being of equal status; the phenomena can only be known through its varied manifestations as revealed through others; the aim of a study is to arrive at meanings; explication is used to reveal the

phenomena under question; the focus of the study is to meet the intention of the research (Whiting, 2002).

3.9.2 Steps of Giorgi's phenomenological method

First step is reading the whole protocol in order to get the sense of the whole (Giorgi 1975). At the first reading, which is called familiarization, the researcher should not make an interpretation of the co-researcher's experience. Quite contrary, the aim of this step is to understand the concrete and naive description of the describer in order to grasp the whole of the co-researcher's experience (Castro, 2003).

At the first step researcher assumes the phenomenological view which means that the research "*brackets*" his or her everyday knowledge, in other words, puts aside his or her theoretical, cultural, experiential presuppositions to take a fresh look at the data (Broomé, 2011). Generally, the first step serves as a ground for the next step, the discrimination of the meaning units (Giorgi, 1985).

Second step is breaking a whole text into manageable units what Giorgi (1985) calls "*meaning units*". The purpose of this phase is to distinguish the different units or blocks which contain self-contained meaning (Polkinghorne, 1989). While reading the text, the researcher should remember that he or she has to understand these units in terms of the whole meaning (Sokolowski, 2000). The core activity in this stage is reading and re-reading the text and identifying areas or units of the interview which highlight the participant's experiences in relation to the phenomena under investigation. The identified units together form the whole meaning of the experience (Whiting, 2002).

The third step is the transformation of subject's everyday expressions into psychological language with emphasis on the phenomenon being investigated, and this transformation takes place basically through a process of reflection and imaginative variation (Giorgi, 1985). By imaginative variation, the researcher both follows the concrete experience of the interviewee and reflects about the different possibilities of the meaning of the interviewee's experiences (Castro, 2003). The core principle of this level is that the researcher takes the phenomenon at the psychological level which is an individuated, worldly and personal level (Broomé, 2011).

The last fourth step is the synthesis of transformed meaning unit into a consistent statement of the structure of learning. More precisely, at the last step the researcher integrate the insights contained into meaning units into a consistent description of the psychological structure of the event (Giorgi, 1985).

3.10 Validity and Reliability

Yin (2009) suggests four tests to establish the quality of any empirical social study. As case studies are one form of such research, the four tests are relevant to case studies: reliability, construct validity, internal validity, and external validity. Explanation of these tests is given below along with comments how these tests relate to the current study.

3.10.1 Reliability

The objective of reliability is to make sure that, if a later researcher followed the same procedures to conduct the same case study as described by a previous researcher, the latter research should result in the same findings and conclusions. The aim of reliability is to provide minimum errors and biases in a study (Yin, 2009). To guarantee reliability Yin (1994) suggests that all the steps of the procedure should be documented. And to document the procedure Yin (1994) proposed a case study protocol where all operational steps of the study - an overview of the case study project, field procedures, case study questions and a guide for the case study report – are recorded. A case study protocol for this study also includes interview and observation data processing as well as the suggested steps with some more ideas and tips to guarantee reliability (Appendix 3).

3.10.2 Construct validity

Construct validity identifies correct operational measures for the concepts under study (Yin, 2009). In other words, construct validity implies that measurement tools selected for the study reflects the aspects of phenomena of the research. One of the strategies to establish construct validity is triangulation, a multiple methods of data collection which includes interview and observation (Gall et. al., 2007). This study also applied triangulation with the intention of ensuring construct validity.

3.10.3 Internal Validity

Internal validity is mostly a concern of explanatory case studies which seek to establish a casual relationship between x and y , in other words, certain conditions or factors lead to other conditions or factors. Internal validity makes a researcher confident of the fact that the dependent variable is certainly the result of the independent variable, and there is a cause-effect relationship between them (Yin, 2009). Since descriptive case study research does not seek to identify casual patterns in phenomena, the criterion of internal validity is not applicable to it (Gall, 2007). From this perspective this case study does not regard internal validity as a concern.

3.10.4 External validity

External validity handles the issue of knowing if it is possible to generalize research findings beyond the current case study (Yin, 2009). Yin (2009) mentions that external validity problem has been a major barrier in case studies, and it is typical of critics to state that single cases offer a poor basis for generalization. Yin (2009) states that unlike survey researches which relies on statistical generalization, case studies rely on analytic generalization. As for the current case study, the aim of the research was to study one particular school in depth, but not to generalize to other cases. However, the findings can be generalized to other cases which are similar to the studied school.

3.11 Ethical Issues

Data collection in case study arises various ethical issues. The main ethical issues deal with the question of how to protect the privacy of the participants, and how to act during data collection and data analyses process in order to assure anonymity of the participants. Because of the nature of qualitative studies ethical points become more serious concerns since these kinds of studies demands intimacy between researchers and participants in order to gain an accurate and more data. Therefore, the researcher needs to consider ethical issues more carefully in all phases, before, during and after the study (Gall et. al., 2007). In order to conduct this study in an ethical manner, the following issues have been considered:

a) Since data collection process requires respecting participant, the researcher needs to get their plan reviewed and approved by a concerning board (Creswell, 2009). Regarding this point,

permission was obtained from Norwegian Social Science Data Service (NSD) to start research (Appendix 4). With NSD the research guarantees that right after finishing the project the data will be deleted for ultimate anonymity of the participants.

b) Informed consent (Appendix 5) is submitted to the participants to make them familiar with all the details such as content and purpose of the study so that they get full understanding of the research and become eager voluntary participants (Faden and Beauchamp, 1986). The informed consent also contained research procedures, topics, possible future perspectives, assured their mentioned anonymity and of course mentioned their voluntary participation which allowed them to withdraw from participation any time.

c) Research data were treated with special care during the analysis and interpretation process. In qualitative research pseudonyms or numbers are used for anonymity (Creswell, 2009). This study used pseudonym for teachers. As for student, special codes were not needed for them since the research did not focus on particular students but rather on activities.

3.12 Summary

This chapter tried to provide broader perspective on the research methodology of the study. To sum up main points, this research utilized descriptive qualitative case study design to get into the depth of the phenomena for better understanding. Understanding its main weakness, impossibility of generalization of the findings, the researcher preferred to case study due to its main strength, abundance of data which lead to full insight into a particular phenomenon. The study used purposeful sampling in order to find “*information-rich*” sample with respect to the purpose of the study. As for the research methodology, the case study adopts triangulation - interview and observation for data collection for the sake of stronger construct validity. To analyse the data Giorgi’s four-step phenomenological method (1985) is used which urges the research to remain true to the facts to get more accurate result. To guarantee the quality of the study in terms of validity and reliability issues, the study referred to four tests suggested by Yin (2009). These tests are reliability, construct validity, internal validity, and external validity which are most relevant to case studies. Regarding ethical issues the study discussed NSD permission, informed consent, and how the anonymity of the participant is guaranteed.

4 DATA PRESENTATION AND DISCUSSION

4.1 Introduction

In this chapter research data in relation to theoretical framework will be presented and discussed. First of all, some introductory information on participants' and school's background will be given as it is relevant to understand the context and the case of the study. The data will be presented and discussed based on six sub-questions developed from the categories:

1. How is the concept of inclusive education understood?
2. How is the concept of academic achievements understood?
3. What kinds of methods are used to raise academic achievements of CSN?
4. How are CSN involved into social interaction?
5. What kinds of assessment tools used to evaluate CSN?
6. What are the challenges of teaching in inclusive education?

To discuss each sub-question, first participants' views will be presented, and discussion will follow. Observation data implications will come after discussion of interview data.

4.2 The Case of a Primary School

As mentioned in methodology chapter, the case selected for this research is one of the rare schools which have offered inclusive education since 2004. In current research unit of analysis includes three inclusive classes in primary school in which children with mental disabilities are educated. As for the phenomenon to be investigated in this research, it is academic achievements of children with special needs. And the focus of this research concentrates on teaching methods in inclusive classes.

Inclusive education idea was generated by joint initiation of two organisations, World Vision and Centre for Innovation in Education, and offered to only some schools selected on certain criteria. The two organizations conducted the project for five years, and later delivered the management to the Ministry of Education. Teachers were selected on a voluntary basis and involved in trainings for the position of teacher assistance. Since the start of the project the school has involved children with different disabilities. Most of those children were diagnosed with autism, Down syndrome and intellectual disability. One TA (teacher assistant) was assigned to each class which included CSN. As teacher assistants are mainly in charge of inclusive education, it was considered relevant to involve them into research as participants. Three teacher assistants were selected who worked with CSN in primary school, 1-4 grades.

4.2.1 Interview Participants

The career profile of the participants will give some important information to discuss the case.

Anna is a teacher assistant in the selected primary school. She has bachelor's degree in teaching and has been teaching for about 15 years. She joined IE project voluntarily, and has worked as a TA since the start of IE, 2004.

Maria has 20 years of teaching experience. She also has educational background in teaching both with Bachelor's and Master's degrees. As most of teacher assistants she joined this project on a voluntary basis, and participated in IE trainings.

Unlike other participants, Nina joined this project with some hesitation, but now is happy with her position in spite of some challenges. She has educational background in primary school teaching, and has been working as a TA since the beginning of the IE.

4.3 Presentation of the Understanding of Academic Achievements

The participants expressed various interpretations of academic achievements by mentioning different nuances. Anna's understanding is quite simple of AA: it is improvements in knowledge and skills in subjects with good grades as evidence. But Anna also mentioned an exception. *“Actually, grades do not always indicate correctly the achievements of students. Still it is generally assumed as indicators of achievements.”* Anna obviously underlines two

components, knowledge and skill, as indicators of AA, and regarded grades as proof of gains in AA.

Maria emphasizes progress in personal world vision equally with growth in intelligence: *“To my mind, academic achievement is development in learning process. I think AA mainly involves development of intelligence, but it also means improvement of personal general world outlook. Because education is not just for teaching certain discipline, it also takes care of personal development.”*

Nina’s understanding of AA is: gaining knowledge and skills in school subjects. *“More precisely, I think achievements in academic knowledge are the results of studies of standard educational content at school. With content, I mean program material in a certain subject.”*

4.3.1 Summary and Discussion of the Understanding of Academic Achievement

As it was presented in theoretical framework, academic achievement is the totality of speech acts and written communications that view the purpose of education primarily as supporting, encouraging, and facilitating a student's ability to obtain high grades and standardized test scores in school courses, especially in courses that are part of the core academic curriculum (Armstrong, 2006).

It can be noticed that a common element in participants’ view of academic achievement is gaining knowledge and skills at school. It was only Anna who mentioned grade as indicator of achievement adding that grade is not always a correct indication of development. In Nina’s view academic achievement is limited to knowledge in standard educational content within school. But Maria mentioned not only development of intelligence in learning process, but also personal development of a student. This understanding is broader than the other participants’ understanding to encompass academic achievements of secondary status such as the social sciences, foreign languages, vocational education, and *“life skills”* (Armstrong, 2006). However, none of the participants classifies *academic content and academic skills* as two distinguishing features of academic knowledge as proposed by Armstrong (2006).

4.4 Presentation of the Understanding of Inclusive Education

The participants expressed their interpretations of inclusive education by referring to common and different aspects.

For Anna its name is self-explanatory which means the process of educating all students together within one setting. And she emphasized that with *all students* she meant those with and without disabilities. Anna underlined the social aspect of IE. *“With the trainings I came to conclusion that the main purpose of IE is social adaptation of CSN. And my personal view is the same.”* But Anna makes an exception regarding inclusion: *“But of course, inclusion is possible to certain degree, especially in realities of our country. I mean working with multiple and severe disabilities would be completely impossible in inclusive classes.”*

Maria’s understands of IE: *“Actually, my understanding about IE does not go further than its usual definition. In short, it is the process of educating children with disabilities within regular schools. That is it.”* As other participants, Maria had too general understanding about IE before the trainings. *“Before, I just had too general understanding about IE. Therefore, I thought that the IE concept was an absurd idea. But the enlightening trainings totally changed my attitude.”* What Maria concludes from trainings and teaching experience is that IE means both education and socialization. Maria underline: *“And my practical experience confirmed this theory that we should not be concerned only about education, but also about social interaction of CSN.”*

For Nina, education and socialization are two leading components of IE: *“Inclusion is educating and socializing CSN with their peers in regular schools using relevant methods and materials which sound quite challenging.”* Nina also acknowledges: *“Of course, by inclusive education I understand more than what we really offer. I mean due to some barriers we do much less than what is needed for better inclusion.”* Like Anna, Nina also talks about some exceptions: *“At the moment, the quality of IE of our school is limited to inclusion of just children with mild and average disabilities. And to tell the truth, I cannot imagine IE with students with severe disabilities.”*

4.4.1 Summary and Discussion of the Understanding of Inclusive Education

According to findings, participants' understanding of IE is quite similar. However, their understanding is very limited to participation of children with disabilities in regular school, and none of them expressed broader understanding to include some essential elements of definition provided by UNESCO (2009) which declare that inclusive education is a process of strengthening the capacity of the education system to reach out to all learners and can thus be understood as a key strategy to achieve EFA. Inclusion is thus seen as a process of addressing and responding to the diversity of needs of all children, youth and adults through increasing participation in learning, cultures and communities, and reducing and eliminating exclusion within and from education.

Another important shared feature in participants' view is the social aspect of IE. All the participants pointed out that along with education of CSN, their social adaptation and interaction is the responsibility of IE. This aspect coincides with social justification of UNESCO (2009) which acknowledges that inclusive education is a goodwill idea to change attitudes toward diversity, and form the basis for a just and non-discriminatory society.

While defining IE, it was only Nina who mentioned "using relevant methods and materials". This aspect is important in terms of meeting the needs of CSN, and this point is also mentioned in policy guideline for inclusive education by UNESCO (2009) which states IE involves changes and modifications in content, approaches, structures and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children.

Moreover, Anna and Nina highlighted an exception regarding the possibility of inclusion of students with severe disabilities. To their opinion, due to current realities, more precisely, barriers and challenges in education system schools are suitable only for the inclusion of those with mild intellectual disabilities.

4.5 Presentation of Teaching Methods

Depending on the disability type, students' interest and strength, teacher assistants implement specific methods. As all the teacher assistants were involved into the same training, they

basically use similar teaching methods and strategies. There used to be a coordinator in the school who arranged a collaborative work of teacher assistants. Through collaboration teacher assistants shared ideas and materials with each other. This is another reason making teacher assistants' methods and approach to be similar.

Anna confidently stresses that entertaining activities with visual aids produce satisfactory results. Giving an example she says that to teach counting and writing she uses coloured and big size pillows, sticks and papers to keep students focused on the topic. For Anna, the two criteria, colour and size, are very important for teaching students with mental disabilities. Anna also underlines that if a teaching material is boring, then the students get distracted easily, so to keep them involved, the important method is considering students' passion and interests during teaching and learning process. Anna made a special emphasis on regular repetition: *"If we are concerned about academic achievement, then students need to repeat a topic over a certain period. Repetition is an integral part of our teaching method, and without repetition we cannot be sure of the learning of students with any kinds of mental disabilities."*

Based on her own observational experience, Anna confidently claims that involving CSN into competing with other students proves an effective method. She accepts that within current situation which is not a full inclusive education, it is technically and practically impossible to encourage CSN to compete with the rest of the class. *"Once I used this method with two students with intellectual disabilities and I got rather satisfactory results."*

Maria says that there is not a certain way of teaching CSN as each of them has their own way of learning. But to teach students with mental disabilities Maria mainly uses special workbooks which are made by teacher assistances as there is a lack of relevant material. The specialty of these workbooks is that they are coloured and big enough to catch interests and attention of children for longer periods. Maria: *"Especially, for teaching letters and numbers I use coloured plasticine because creating and shaping the form of items is amusing and interesting for them. This method keeps them concentrated on the task, and they do more and learn more."* Maria says that this activity also contributes to development of motor impairments. By seeing and feeling what they do children can learn and develop faster. In Maria's view, visual aids have an irreplaceable role in teaching and learning process of CSN.

Maria also stressed the importance of periodic repetition of teaching of a certain subject for better learning. *"I would not say that CSN learn immediately with the most effective method."*

With any kinds of methods we need to repeat the topic on a periodic base. I think it is central rule of teaching a CSN: no repetition, no learning.”

Nina says that as other teacher assistants, theoretically she knows a range of teaching methods. However she cannot use all of them for some reasons. Emphasizing the importance of visual aids Nina continued: *“Students with mental disabilities do not have abstract thinking. They understand through concrete samples. Seeing, feeling, hearing are main components for CSN to understand a concept. Therefore visual aids are the central element of methods.”*

Nina also gave a detailed description of one of the intensively used methods: *“Out of experience, I can say that the best and fastest way of learning writing is what we call “dot connection”. We put dots in the outline of pictures, letter or numbers, and ask children to connect the dots drawing line between the dots. This activity is interesting for students, so they are eager to spend more time on it which promotes their writing and learning skills”*

As other teacher assistance, Nina also underlined personal interests of CSN. *“I also believe that, as it was emphasized by experts in training, the success of CSN lies in their interest. To be honest, it is not always possible, but I personally do my best to consider interests and hobbies of students.”*

4.5.1 Summary and Discussion of Teaching Methods

As mentioned before, all the teacher assistances participated in the same trainings in which they were given understanding of IE, and taught teaching methods and strategies for CSN. Moreover, through coordination they exchanged ideas and materials with each other. Consequently, all of them implement almost the same approach while teaching CSN. Interviews and observations indicate that TAs still have primitive approach to IE though they have been teaching about ten years.

All the teacher assistants mentioned the importance of visual aids for teaching CSN. For respondents, visual aids are the central phenomena in teaching methods and process. Nina was precise on visual aids mentioning that students with mental disabilities do not have abstract thinking and they understand through concrete samples. This point of views of TAs on visual aids coincide with one of the core column of Vygotsky’s theory which highlights

the importance of tools/artefacts (languages, number systems, signs and symbols) for development of a child (Vygotsky, 1978).

Moreover, Anna and Maria accentuated periodic teaching of any topic for the sake of better learning and understanding of CSN. Maria expressed a strict view on periodic teaching saying that repetition is central rule of teaching a CSN: no repetition, no learning. This approach basically corresponds with spiral curriculum idea proposed by Bruner (1960) which declares that the curriculum should revisit basic ideas repeatedly and expand upon them until a child has a complete understanding. Bruner (1960) takes periodic teaching at greater scale, more precisely on curriculum level. However, TAs are not able to apply this idea to the curriculum because of some administrative and legislative barriers. But basically, they seem to be on the right track holding repeated teaching.

Out of three respondents it was only Anna who spoke about competitive learning process. Describing one of her experience, Anna added that involving CSN into competition with other students is an effective method which also satisfies the needs and interests of CNS. This method in some ways agrees with participatory appropriation generated by Rogoff (2003) which suggests that through engagement in an activity, individuals change and handle a later situation in ways prepared by their own participation in the previous situation, and this is a process of becoming, rather than acquisition. The implication of the core idea of “*appropriation*” for IE implies that a student change while participating collaboratively or competitively in activities such as group works and pair works, and consequently become ready to deal with situation in following activities. Moreover, competition between students involves them into cognitive engagement which is defined as psychological investment in learning knowledge and skills (Newmann et al., 1992), and initiative in hard work and positive attitude to failure (Connell et al., 1991). A common view shared by all respondents is about personal interests of CSN. All the participants mentioned that teaching results in productive learning when interests of students are taken into account by an educator. This belief both comes from participants’ theoretical knowledge gained at the training and also from their personal judgment.

4.6 Presentation of Social Interaction of CSN

Generally, all the respondents seemed to be dissatisfied with the social interaction of CSN. The main reason was that CSN do not attend the school regularly as other students. In primary school students with disabilities participate in lessons two or three times a week, and moreover, they do not take part in all lessons which means that they are not in constant social interaction. The gaps in continuous attendance of CSN prevent them from rapid and closer socialization. Finn et al. (1991) emphasize that participation at early ages in schools is in positive relations with performance at later years.

Referring to her observation Anna said that a warm interaction usually happens in post-class duties when students deal with class arrangements and do some cleaning. Anna added: *“For more social interaction we assign them daily after class duties too. And it really worked in favour of CSN in terms of socialization.”* Anna said that at early days of school students usually do not have close relations with CSN. *“However, it does not take too long for the students to get closer and make friend with CSN and I strongly believe that post-class duties accelerated this process because students have the chance to spend more time together.”*

Maria acknowledged that she is not successful enough in terms of involving CSN in socialization during class period. Maria added: *“In trainings we learned lots of interesting and enlightening group works and class activities. But we cannot realize them because of some barriers the main of which is traditional teaching approach suggesting almost zero interaction.”* But to compensate weak socialization in class period Maria encourages the CSN to participate in extra-curricular activities. Maria explained: *“We usually arrange plays and shows and we definitely assign them certain tasks. Of course, it is not easy to work with them but we never give up. We do it because social interaction is an integral part of their development and that is why CSN are in inclusive classes.”* Maria thinks inclusive education is a good idea and a good chance to introduce people with exceptionalities to the society. *“Of course, we are doing our best to focus on better academic performance of CSN. But we also need to approach their social adaptation as equal as their academic achievements.”*

Nina accepts that this is teachers’ or assistants’ responsibility to involve all the students into full and meaningful engagement in the class period. However, Nina also seemed displeased with socialization of CSN: *“Unfortunately, there are almost not any group activities or peer*

work even for students without disabilities. Student can only be in social communication during breaks or extra-curricular activities.”

4.6.1 Summary and Discussion of Social Interaction of CSN

Bruner (1986) regards learning as a communal activity or sharing of culture. In addition, social learning theory by Bandura (1977) states that observation, modelling and imitation are important means for cognitive and behavioural learning. Discussing the relation between disability and society Vygotsky (1978) describes disability as a socio-cultural developmental phenomenon, and argues that disability appears as disability when it appears in the social context. Moreover, Vygotsky's (1978) sociocultural theory of development underlines that children learn through social interactions and their culture. These factors stimulate and boost children's development thorough social activities helping them learn cultural values which determine the shape of children's cognition. Regarding mutual relations between activities and academic progress, Finn (1993) mentions that there is consistent and close correlation between school engagement and academic achievements of students which manifest itself in constant attendance and regular participation in extra-curricular activities.

It seems that all the respondents are aware of the importance of social interaction of CSN, and they are trying to provide CSN with opportunity to socialize with their peers. All the participants mentioned that friendly and intimate relations between CSN and other students appear only in out-of-class activities such as extra-curricular activities. However, respondents complained about weak interaction between students in lessons due to some barriers. Cooperative learning produces better academic achievements for all for all students in a classroom (Stevens and Slavin, 1995) and promotes sense of belonging for all students (Johnson et al., 1984). Maria said that teacher assistants have theoretical knowledge how to organize classroom activities, but because of traditional teaching approach they are not able to practice theoretical knowledge. With the educational activities happening within classroom the school context has a vital role in stimulating student engagement and development. School engagement is quite a broad understanding which includes behavioural engagement, emotional engagement and cognitive engagement (Fredricks et al., 2004).

4.7 Presentation of Assessment Tools Used to Evaluate CSN

Anna acknowledges that she does not use any special IE assessment tools any more. However, previously she used individual educational plan for assessment records about academic, social and emotional achievements of students with special educational needs. Anna added: *“Nowadays instead of IEP I note down daily or weekly records to compare achievements. And it is rather informal way of assessment.”*

Maria: *“For TAs assessment is one of the most ambiguous issues in IE right now.”* Explaining her view Maria continued saying that since inclusive education has not been fully adapted to education system yet there exist several problems waiting for the solution one of which is assessment. Maria noted that within pilot IE project teacher assistants used an individual education plan in which they recorded periodic assessment of CSN. But as the project is over TA quitted IEP because it does not function as it should. *“Theoretically IEP was full and detailed assessment tool, but it did not work practically. Because it included periodic evaluation by teachers, teacher assistants, parents, psychologist, speech therapist, special needs educator, physician, and project leader. But of course, not all of them were available. It was only TA who used IEP, and sometimes class teachers.”*

Nina mentioned that traditional assessment method is a dominant approach to academic evaluation of students which cannot be used for assessing CSN. *“I think individual education plan is what we need for assessment which helps keep track of development of CSN. But to fulfil the requirements of IEP we need a full team of assessors such as psychologist, speech therapist, physician etc. As a rule, we assess achievements compared to previous weeks or months, and this I call “comparative assessment”.*” As for the official assessment, Nina said that the class teachers grade the CSN with a standard mark. There is a class register where the official grades of the students are recorded. As a rule, students are graded based on “5 score” numerical academic grading system. Without considering any development of CSN, the class teachers record “3” for CSN in the class register which is considered an average score because all students are required to get an average score to be upgraded to the next form.

4.7.1 Summary and Discussion of Assessment Tools Used to Evaluate CSN

The concept zone of proximal development (ZPD) proposed by Vygotsky (1978) has productive effect and leading implications for assessment of CSN. ZPD embraces concept of learning and development of Vygotsky's theory. In a short, the essence of this notion is that learning precedes development. The difference between the two levels of development (real and potential) is ZPD which is indicator of mental abilities. Learning takes place in ZPD and precedes a child's development (Vygotsky, 1978). In other words, ZPD is the distance between the level of actual developmental and the level of potential development. Actual development is determined by independent problem solving, whereas potential development as determined through problem solving under adult guidance. What respondents mentioned about the assessment which they use indicates that they consider only one aspect of ZPD. More precisely, by comparative assessment TA evaluate recently gained knowledge and immediate needs of CSN. However, they did not talk about what comparative assessment reveals about possible future development of CSN. Discovering clues regarding what students will be able to master in the future is very important issue as it will guide an educator in the right direction.

Inclusive assessment is an approach to assessment in mainstream settings where policy and practice are designed to promote the learning of all pupils as far as possible (Watkins 2007, p. 47). Interview data infer that teacher assistants refer only to a single source of data for assessment which is non-systematic observation suggested by Salvia (2013). Teacher assistants work under rather restricted circumstances to make use of other sources such as systematic observation, recollection and professional judgments (Salvia et al., 2013). In such a case they are not able to refer to the principles, focus and methods of inclusive assessment developed by European Agency for Development in Special Needs Education (2007).

Kirk et al, (2012) states that an individual education plan is a written document developed for a student with special educational needs; it describes the student's current needs, performance and goals for the school year, the particular special educational services to be delivered, and the procedures by which outcomes are to be evaluated, and moreover, the IEP also assists teachers monitor the student's development and provides a framework to deliver information about student's achievements to parents. For more accurate assessment of CSN all teacher assistants used to make use of individual education plan. However, they seemed to be

dissatisfied with the effectiveness of IEP since it was not used properly due to the lack of professional staff. Therefore they quitted using IEP, and instead they simply evaluate students with their own way of assessment.

4.8 Presentation of the Challenges of Inclusive Education

Anna commented that some problems emerge from the fact that the curriculum is not adapted to the needs of CSN. “If we have a serious intention to deliver better inclusive education, then we should do something about adaptation of curriculum and other important factors.”

Moreover, Anna considers further trainings of teacher assistants to be important in terms of updating skills and competence. “As there are no more training I try to improve myself with the aid of other sources like websites which are not as effective as professional trainings.”

While talking about challenges, Anna re-emphasized the drawbacks in the implementation of IEP.

Regarding challenges Maria focused on lack of teacher assistances. Maria clarified: “At the moment the number of CSN in our school is much more than TAs. Practically, it is impossible to spare considerable time for each student because it is a difficult and time-consuming process to work with CSN.” Furthermore, Maria complained about limited educational aids and references designed for the needs of students with educational needs. Also, one of the common problems TAs encounter is the concern of parents of students without special needs. Maria: *“Many parents express their worries openly about quality of education within inclusive classes because they think that there can be distractions and interruption by student with disabilities. But we are lucky to be able to negotiate with parent on this issue.”*

For Nina one of the main challenges which produce several other barriers is the inappropriate assessment of CSN. In Nina’s view, theoretically IEP accommodates the needs for accurate assessment of CNS in terms of their academic and social progress. Nina confirmed that none of the teacher assistants use IEP “...because it does not function as it should. I mean there are some responsible experts mentioned in IEP who should be available at school to evaluate CNS, but we have only teacher and teacher assistants.” Like Maria, Anna also touched on insufficient number of teacher assistants, and commented that “... we are more student assistants rather than teacher assistants.”

4.8.1 Summary and Discussion of the Challenges of Inclusive Education

Curriculum adaptation makes sense in IE addressing the needs and various learning styles of students. An adapted curriculum like Curriculum Relation Model suggested by Johnsen (2012) reflects important aspects for meaningful and individually adapted curriculum which considers important elements such as *the pupils, educational intentions, educational content, methods and organization, assessment, communication, care and context/frame factors*. Anna is quite aware of the importance of curriculum adaptation for IE, and admits that unadapted curriculum causes some other barriers and problems one of which is that CSN stay out of the focus of the curriculum. That view coincides with Universal Design for Learning Guidelines (2011) statement which says that it is inflexible curricula that raise unintentional barriers to learning. Guidelines (2011) also notes that the learners who are “in the margins”, such as learners who are gifted and talented or have disabilities, are particularly vulnerable.

Maria pointed the lack of teacher assistants as a real challenge. This factor also comes from unadapted curriculum because since the general curriculum cannot meet the requirements of students with disabilities, those students need an assistant to support them in academic challenges. Maria also mentioned the resistance by parents who are against IE. Such situations are quite normal which can be evaluated as a psychological barrier (Dalín, 1978). However, the findings appeared in favour of inclusion showing that children without disabilities made statistically important progress in learning environmental education concepts (Sharpe et al., 1994; Affleck et al., 1988; Schleien et al., 1994, as cited in Dyson et al., 2004)

But in Nina’s view the main challenge is the inappropriate assessment of CSN. As a solution, Nina mentions that to overcome this challenge IEP is an effective tool. However, the school does not use it since there are not relevant responsible experts. IEP is prepared through a collaboration of the school, parents, the student (where appropriate) and other relevant personnel or agencies. IEP is an effective educational tool to support CSN to learn to leave school with the skills necessary to participate to the level of their capacity in an inclusive way in the social and economic activities of society and to live independent and fulfilled lives (NCSE, 2006).

4.9 Observations data implications

4.9.1 Classroom arrangement

The observed classrooms have almost the same general design and arrangement with some slight differences. The desks are arranged in three rows with two students sitting together in the direction of learning centres. There are shelves both in back and front of the classroom. The shelves contained some instructional materials, handmade didactic arts, and books. There are also maps, and some handmade posters on the walls prepared by the students. All the educational items seem to be accessible and usable by all the students. For Burgstahler (2008), universal design means arranging classroom setting to be usable by all students without modifying and applying special design. In the observed classrooms the settings have organized and structured physical space which are quite welcoming for all students, and do not need any modification to accommodate specific needs of the students with special educational need. Pielstick (1999) classified three aspects of the classroom environment: the physical, social and instructional. Observation data implies that the classroom arrangements meet the physical and instructional principles, but it is not quite welcoming in terms of social principle since only two students sit next to each other. This way of sitting appears to be convenient only for pair work but not for group work. Besides, this way of sitting excludes CSN from the rest of the students. Sundstrom et al. (1990) suggest that classroom arrangement that promotes informal and face-to-face interactions empower inter-member communication and higher level of integrated group activities.

4.9.2 Understanding of Academic Achievements

Observations indicate that teacher assistants' understanding about academic achievements corresponds more or less with what they stated. With full and enthusiastic energy, TAs explain topics and try to elicit clues of understanding from students by asking questions like "*is it clear?*", "*did you understand?*", "*can you repeat it, please?*" By questioning TAs want to make sure that academic content is grasped by students with special educational needs, and those students move forward step by step in knowledge. But in Maria's case who mentioned that "*...academic achievements also mean improvement of personal general world outlook (personal development).*" observations did not reveal any noticeable initiation by a TA regarding *personal development* of a CSN. All the teacher assistants and students interactions

appeared to be more academic, and did not involve any activities to boost student's personal development such as social skills. However, teaching-learning process reminds scaffolding which means an active temporary support structure built around a child by a teacher (Bruner, 1978).

4.9.3 Understanding of Inclusive Education

During the observation the investigator witnessed that teacher assistant face barriers to realize what they think of inclusive education. TA – student interaction within class process is obviously like segregation within inclusion. In other words, TA hold teaching process in isolation in the back of the classroom, and the CSN can hardly interact with other students during lessons. Against what Anna said “... *the main purpose of IE is social adaptation of CSN*” she could not involve her students with specialties into social adaptation within lessons. The same situation appears in Maria's case. While expressing her understanding of IE, Maria underlined that “...*we should not be concerned only about education, but also about social interaction of CSN.*” But her failure to promote social interaction of CSN was clearly visible. In the interview Nina pointed to this restriction in IE they offer acknowledging that “By inclusive education I understand more than what we really offer. I mean due to some barriers we do much less than what is needed for better inclusion.” And based on observation data it is quite possible to say that by better inclusion Nina meant social participation of CSN because there was zero socialization in the lessons in her case.

4.9.4 Teaching methods

The investigator had the opportunity to observe Anna teaching a student who was diagnosed with developmental and speech delay. It was the first form of the primary school. As always the TA sat with the CSN at the back of the classroom. This practice prevents the whole class students from benefiting support of TAs (Jones, 1987). TAs support students by keeping in contact with those who need help, but not sitting with a student. Support should be in favour of all students and it must support class teachers (Hrekow and Barrow, 1993). There were coloured pens, pencils, papers, sticks, pictures of animals and fruits, coloured plasticine etc. on the desk. Obviously, it was hard for the TA to keep the child concentrated. The student was eager to walk around the classroom touching the belongings of the others. Several times, the student went to the board, took the marker and started to write. Seemingly, the student got

encouraged for this activity because he saw the other students going to the board in turn and writing something. The class teacher seemed not be quite welcoming to the behaviour of the student with special needs, and reacted it as an intrusion.

In the observed classrooms the student with special educational needs did not follow the same program with other students because the student was not able to catch up with the others. Besides, the teaching pace and method of the class teacher did not accommodate the needs of the students. Therefore, the TA took special care of the academic needs of CSN.

During the learning process the CSN shifted from one activity to another one very often. The student got engaged in one activity about 5-6 minutes. The favourite activity of the student seemed to be drawing with coloured pencils. While being involved into the activity, the TA sat next to him helping and directing the students. The student did not have a certain task to implement. Throughout the lessons he picked the activities randomly and worked on his own in isolation from the classroom activities.

Observations revealed that through the repeated activities the student showed an apparent development. For example, the TA asked the student to arrange the stick in groups according to their colour and size. After several attempts the student succeeded in better arrangement of colours and sizes. That was the point Anna mentioned in the interview: *“If we are concerned about academic achievement, then students need to repeat a topic over a certain period.”*

It is impossible to talk about social interaction between the student with special needs and other students. During the lesson the student with special needs tried to sit down next to one of the students. But both the class teacher and TA did not let the student sit beside other students on the assumption that he may cause disturbance and distraction. Even during the break the student with special needs was kept under control by the TA, and had restricted socialization. Not a specific social intercourse was observed between the student with special needs and other students.

Maria was observed while teaching a student with mild intellectual disability and speech delay studying in the third form of primary school. As a rule, the TA and the student sat at the back of the classroom next to each other. Maria did not use any special teaching material. In the math lesson they were following the same program with the whole classroom. Though the student was diagnosed with mild intellectual disability, he was able to solve mathematical

problems himself with close supervision and guidance of the TA who used scaffolding method (Bruner 1960). After that Maria graded the student writing “good”, “very good” in the student’s workbook. It was an unofficial grading. And it was only Marian who was observed to assess the student during the lesson.

As the student had a speech problem he could hardly pronounce random words. However, Maria and the student could understand each other with lip movements. Maria explained new concepts in written form and also used her fingers. The student did not grasp the concepts after just one explanation. Therefore the TA tried couple of times with slightly different way of explanations. But the TA did not use any method which was seriously different from traditional teaching methods. The TA kept speaking in normal tone while explaining, and the student tried to utter some words in higher tone. But this situation did not disturb or distract the attention of other student as they seemed to be used to this situation.

As for social interaction, it only occurred during the brakes. The student with special needs did not get involved into interactions with other students actively. He mostly kept sitting in his seat watching other students, and did not initiate conversation or any interactions with the students. The TA left the classroom during the brake. It was only the class teacher who stayed in the classroom, but the teacher did not regard him as a student with special needs.

In Nina’s case observation did not reveal something different. General situation was almost the same with other cases. Nina was observed while working with a student in the first form of primary school who was diagnosed with intellectual disability. Nina also had several kinds of teaching materials near at hand such as coloured pencils and markers, coloured plasticine, pictures, match sticks, some geometrical figures etc. Nina was trying to teach letters with the help of coloured pencils writing big letters on a paper. After showing how to write some letters Nina put dots along the outline of letter and asked the student to connect the dots with a coloured pencil. The student chose a different colour every time. This process took quite a long time because the student tried to avoid the learning process couple of times. At the beginning the student was obedient and followed instructions with interest. After about 15 minutes the student started to reject learning process. To keep the student busy Nina offered alternative activity which was arranging small geometrical figures according to size and form. This activity kept the student busy and concentrated less than 10 minutes. This simple teaching-learning process proceeded through the period of just two lessons. After that the

student left the school. In such case there occurred almost zero social interaction to be observed.

4.9.5 Social interactions of students

According to observation data problematic issue with IE is that students with special needs are not involved into social relations with their peers. Although in the interview the respondents emphasized that IE is not only for academic performance but also socialization of CSN, it is hard to say that they were successful in involving CSN into social interaction. In all three cases the students with special needs were exposed to segregation sitting at the back of the classroom with the TAs during the classroom process. None of them participated in any class activities. Actually, as the teaching process occurred in rather traditional way, there was not any group or peer work during the lessons. This fact reduced the chance of socialization of all students including those with special needs.

4.9.6 Challenges

Observation data reaffirm that the biggest obvious challenge for TAs is that they carry overall burden of IE on their own. During the observed lessons the TAs worked without single help by the class teachers. In fact, TAs do not perform as a teacher assistant, but rather they function as a student assistants. The distinction between the role of TAs and teachers was clearly identified by Farrell et al. (1999, as cited in Vincett et al., 2005): Teachers plan the programs, monitor their success, hold review meetings, and liaise with parents, and the responsibility of a TAs simply is to implement the programs under teachers' guidance. TAs support students in mainstream classes by keeping in contact with those who need help, but not sitting with a student. Support cannot be only in favour of students with special needs. Rather, it must support class teachers (Hrekow and Barrow, 1993). For Kennedy et al., (1975) it is not the responsibility of a TA to plan activities, organize or manage classroom. Their performance is restricted to only encouraging and helping student when they need support.

Actually, all TAs had a teaching background and had enough teaching experience. Still their need for a professional support by the class teacher was obvious. Informal talks with the class teachers revealed that they have participated in IE trainings, and they are in favour of inclusive education. However they also admitted that they are not competent enough to lead IE in all cases and need assistance. But the fact is that when teacher assistants get involved

into IE the main responsibilities rest on them. The side effect of this situation is that students with special needs also suffer from non-existence of cooperation between teacher and teacher assistant, and consequently get marginalized within classroom. Referring to studies Avramidis et al. (2000) indicate that teachers who participated in trainings of high quality feel to be more competent in teaching inclusive classes. Opdal et al. (2001) also claim that with professional trainings teachers get detailed information and necessary skills in inclusive education, and consequently get self-confidence in teaching profession which increases their eagerness to take responsibilities of a classroom with diverse needs.

The most effective cooperation between teacher and teacher assistant can be built through co-teaching which is implemented to increase and support the inclusion of children with disabilities (Mastropieri and Scruggs, 2006). There are also several co-teaching approaches such as One Teaching One Assisting, Station Teaching, Parallel Teaching, Alternative Teaching, and Team Teaching (Cook and Friend, 1995) which may suit the needs of IE in various contexts.

4.10 Summary

This chapter presented and discussed both interview and observation data in the light of theories and empirical studies presented in the theoretical framework chapter. The purpose of this chapter was to deal with the research findings to shed light on phenomena of the study – the academic achievements of children with special needs. The researcher decided to collect interview data referring to the perception of those educators who can provide abundant information on the pre-defined categories which have been motioned several times above. With the sampling procedures it turned out that teacher assistants were the very best suited source of data since they were mainly in charge of the education of students with special educational needs. However, class teachers were also involved into the research with informal conversational interview to find out their general perception of inclusive education. The main focus of the current case study was on the teaching methods of the teacher assistants. However, the categories embraced a wide range of issues in order to provide broader understanding of the academic achievements of CSN in various aspects. The observations also concentrated on the same categories in order to follow interview data and check its availability.

Comparing interview and observation data in terms of different and similar patterns the study found that there are overlapping and segregated points in data. Interview and observation data mostly agree with each other on TAs' understanding of academic achievement. However the respondents provided broader understanding of academic achievement and observation data indicated that they could not act exactly according to their understanding. This type of the disproportion between interview and observation data also appeared in the second category, TAs' understanding of inclusive education.

As for the teaching methods, both sources of data overlap in terms of one of the main tenets of social constructivist theory by Vygotsky which highlights the importance of tools/artefacts (languages, number systems, signs and symbols) for development of a child (Vygotsky, 1978). From this perspective, two of the TAs used several types of visual aids while teaching students. Besides, two of the TAs applied repetitive activities, as they mentioned in the interview, which basically corresponded to the nature of "spiral curriculum" suggested by Bruner (1960). Another matching pattern in both data was active teaching-learning process which accorded with the concept of scaffolding which means an active temporary support structure built around a child by a teacher (Bruner, 1978). Both sources of data also agree on the absence of cooperative learning (Artz and Newman, 1990), and sociocultural activities such as participatory appropriation, guided participation, and apprenticeship (Rogoff, 2003), and also modelling, imitation and observation which are the instruments of social learning theory by (Bandura, 1977).

When it comes to the social interaction of CSN, the interview and observation data follow a similar pattern. More precisely, CSN could not take full advantage of attending public school inasmuch as they were segregated from the peer students within a class. Consequently, this situation led to deprivation of behavioural, emotional and cognitive engagement (Fredricks et al, 2004) which could contribute to behavioural, emotional and cognitive development of CSN. Although interview data is full of indications of extra-curricular activities, limited observation data fail to confirm or deny those indications. Interview and observation also have common findings regarding the assessment tools used to evaluate CSN. The findings suggest that there is not a sign of inclusive assessment in terms of its principles, focus and methods (Watkins, 2007).

According to both data, the most noticeable challenge was that TAs struggle on their own with the issues of inclusive education. Conventional methods of teaching do not incorporate

collaborative teaching. According to research findings this factor stands at the base of unsatisfactory academic achievements of CSN. To clarify more, traditional teaching methods do not involve group or peer work or activities to nourish cooperative learning, sociocultural activities and social learning which are vitally important for academic and social progress of CSN. In such a case, TAs work within rather limited circle teaching with limited resources such as use of visual aids and repetitive teaching. General picture of the study suggests that students with special educational needs learn some basic knowledge. However they could learn much more if they were really included into classroom and educated with within the standards of high quality IE. To meet the standards of IE it is important to eliminate the barriers to minimum, and this, in its turn, will enable the educators to apply wide range of teaching methods.

5 CONCLUSION AND RECOMMENDATIONS

This study aimed to investigate the academic achievements of student with disabilities in inclusive education. Based on six-category framework the study attempted to address key factors which may possibly influence academic achievements of students with disabilities:

1. Teacher assistants' understanding of academic achievements
2. Teacher assistants' understanding of inclusive education
3. Teacher assistants' teaching methods implemented in inclusive classes
4. Social interaction of CSN
5. Assessment tools used to evaluate achievements of CSN
6. Challenges of IE

The case study approach of qualitative study was employed to explore a certain primary school interviewing three teacher assistants and observing classroom process. Moreover, the researcher had informal talks with class teachers to get their views on some issues. As a conclusion, the last part will present research findings, and will reflect on strengths and weaknesses of the study. Finally, the study will also offer some recommendations for better organization and management of inclusive education, and implications for future studies in this sphere.

5.2 Strengths and weaknesses of the study

This study had stronger and weaker points in some aspects. As the investigation is based on a case study approach, it was considered necessary to apply a wider framework to include main and important factors which can provide deeper and clearer understanding of academic achievements of CSN. Besides, case study approach enabled the researcher to realize in-depth analyses of the case with appropriate questions finding relevant school and information-rich participants. Moreover, the study employed triangulation, a multiple methods of data collection

which included interview and observation to extend confidence in its validity and improve the quality of the data and accuracy of the findings.

As for the weaknesses of the study, it should be mentioned once more that since this study investigated only a single case, it is not possible to generalize the findings to other cases. In addition, although triangulation was employed for data collection, the observation data were not relevant in quantity to support all aspects of interview data within framework. The reasons of limited observation data were addressed in research methodology chapter. Besides, TAs were mainly interviewed as key participants of the study and class teachers gave some information about their perceptions in informal talks. The reason was that since TAs deal with education of CSN and challenges of IE, they were eager to participate in the study but class teachers showed clear reluctance.

5.3 Research Findings

Certain questions were outlined in an interview guide to explore each category in-depth. The first category is the understanding of academic achievements. The participants expressed clear but narrow understanding of academic achievement. Although the three interviewees have their own way of understanding of academic achievement, there is a common point in three of them which implies that knowledge is a key factor lying in the base of academic achievements. Apparently, the participants have too general understanding of academic achievement which does not include two distinguishing features: *academic content* and *academic skills* (Armstrong, 2006). Observations data also indicates that teacher assistants are not successful enough in teaching academic content and skills properly. Students with special needs lag behind their peers in learning necessary knowledge and skills envisaged in the academic program. Still they are able to learn at their own pace making gradual progress.

The second category is the understanding of inclusive education. Basic implications of all the participants' understanding suggest that inclusive education means participation of CSN in regular school. As participation of CSN in public schools is the basic component of IE, this understanding corresponds to generally accepted definition of IE. Moreover, all the respondents emphasized social aspect of IE stating that one of the main purposes of IE is to bring CSN into a wider social context and grant them a chance for socialization. This aspect is declared as a social justification of inclusive education by UNESCO policy guideline for

inclusive education (2009) which defines IE as a goodwill idea to change attitudes toward diversity, and form the basis for a just and non-discriminatory society.

Regarding interview data on understanding of inclusive education, observation data imply that though the teacher assistants are aware of social aspect of IE, they are not capable of involving CSN into interaction during classroom period. However, it is not teacher assistants to blame for this situation. The issue is that as there is almost zero collaboration between class teachers and teacher assistants, CSN stay in isolation within classrooms. It is only teacher assistants with whom CSN interact intensively. With the current features of IE, it is more like “integration” or “mainstreaming” model of educating CSN rather than IE model which is defined in international documents.

The third category is teaching methods. Since all the teacher assistants participated in the same trainings before starting to work in this position, there are similarities in their teaching methods. Another reason that brought about the similarities was that there used to be a coordinator in the school who arranged and managed collaborative work of all teacher assistants. Teacher assistants held this position in consecutive order. Interview and observation mainly agree with each other on the fact that teacher assistant use a lot of visual aids in teaching process. Other prominent methods are repetitive pattern of teaching and learning process, teaching around interests of CSN, and also competitive learning process. Teacher assistants confidently mentioned that they know lots of teaching methods to be implemented through group and peer work, games and plays. However, as both interview and observation data signify, teacher assistants do not have a slight chance to realize their theoretical knowledge in practice mainly because of traditional teaching and other barriers. From this perspective, research findings clearly imply that academic achievements of CSN are not at the satisfactory level.

The fourth category is social interaction of CSN which was also discussed above. What is clearly visible from two sources of data is that there is not enough social intercourse between CSN and other students. But in the interview, the teacher assistants informed that they try to involve CSN into extra-curricular activities. But because of some reasons, which were clarified above, the researcher could not collect data on out of class activities of CSN.

The fifth category is assessment of CSN. Assessment is quite a complicated matter of IE in the studied school. Actually, class teachers grant average official grades to CSN so that they

can be promoted to next form. But in reality those grades are not based on actual practical assessment of CSN. In view of teacher assistants, individual education plan, which was used as an assessment tool before, is ideal for more accurate assessment. But IEP is not in use any more due to bureaucratic and technical barriers.

The last category is the challenges of inclusive education. Research data show that challenges such as unadapted curriculum, irrelevant assessment, lack of teacher assistants, limited appropriate teaching materials, and poor social adaptation make barriers for better academic achievement of CSN.

5.4 Recommendations and Implications for Further Studies

This study tried to shed light on academic achievements on CSN in IE mainly from the perspectives of teaching methods of TAs. However, findings suggest that the way to academic success goes through some factors in addition to teaching methods. At the top of the hierarchy of factors stand laws and regulations enforcing quality IE throughout the country. As mentioned above in this research paper, as a post-soviet country the education law in Azerbaijan contains very indirect indications of IE. So the absence of relevant law can be regarded as the main factor which keeps IE out of attention. It is up to decision-makers to initiate law enforcement and legal procedures for the realization of IE. Sooner or later it should be done because Azerbaijan has signed and joined all international laws and conventions regarding human rights.

Relevant law, in its turn, will lead to further innovations in education. To address the needs of all students in IE context, these innovations should happen systematically in various levels as follows: *Functions* level which is concerned with the objectives and functions of the school in the broader social and economic context; *Organization* level which deals with the organization and administration of the educational system; *Role Relations* level that handles role definition and role relationships to improve relations between individuals and among groups; and *Curriculum* level which is mainly concerned with the curriculum, its aim, content, methods, evaluations, material and internal organisations of instructions (Dalin, 1978).

The next important factor is teacher training for IE at academic level. Research data revealed that though class teachers and teacher assistants have higher education background in teaching, none of them got neither theoretical nor empirical knowledge at university. Therefore class teachers fail to handle issues of IE on their own, and need urgent assistance. Prospective teachers need to be educated on professional skills about special educational needs at universities. Higher Education institutions have an important role to ensure that their teacher education courses are based upon solid evidence and good classroom practice (European Commission Communication Improving the Quality of Teacher Education, 2007, p. 15). Furthermore, upon conducting a research Franzkowiak (2009, as cited in European Agency for Development in Special Needs Education, 2010, p.27) recommended that introductory courses on inclusive education should be mandatory for all teacher education students, and bachelor and masters courses should include inclusive education and combined degree programs.

Another factor is curriculum adaptation which is important to upgrade quality of IE. With current curriculum, which was developed on the base of exam-oriented principles and discipline-centred educational traditions, it is hard to talk about academic achievements of students special educational needs. So it is necessary to make urgent modifications and updates on the curriculum regarding content, teaching methods, assessment and other important issues in order to make way to better IE.

International experience implies that above-mentioned factors and principles lead to better inclusive education which facilitates all students with various educational needs to achieve quality academic performance. So it is time for decision-makers in education administration to refer to international experience to deliver education for all.

As for the school practices, the first and foremost recommendation of this study is that class teachers and teacher assistants should work in collaboration in order to create inclusive environment in a classroom. Because the purpose of IE is not only about attendance of CSN at regular schools, rather it is about active participation of CSN in social life and teaching process in inclusive schools. In order to build effective collaboration teachers and TAs should be able to work as a team, demonstrate commitment to teamwork, value positive interdependence, agree on their common goals and roles, and participate in joint trainings (Vincett et al., 2005). Furthermore, to contribute more to the academic performance of all,

educators need to consider co-teaching approaches like one teaching one assisting, station teaching, parallel teaching, alternative teaching, and team teaching (Anderson et al., 2013).

Since IE concept is quite new in Azerbaijan, there are very few researches conducted in this domain. From this point of view, this study should be regarded as necessary source as it revealed just some facts regarding one aspect of IE, academic achievements of students with special needs. Moreover, though this study has a number of obvious limitations, it has generated some ideas for future researches. First of all, social aspect of IE needs to be studied in particular. This study indirectly suggests that one of the reasons of poor academic achievements of CSN is the lack of social interaction between CSN and other students. So this point should be addressed in detail. Moreover, the findings openly show that there are many challenges and barriers in IE some of which have been addressed in this study. All kinds of barriers such as value barriers, power barriers, practical barriers, and psychological barriers (Dalin, 1978) which hinder innovations in education should be studied fully.

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Appendices

Appendix 1: Interview guide

Background questions

1. Tell me briefly about your educational background.
2. How long have you been teaching in inclusive classroom?
3. Have you attended any special training program before you started teaching in inclusive classroom?
4. What experience and skills did you learn in the trainings that can help you to teach an inclusive class?

Teacher assistants' understanding of academic achievements

1. What do you understand by academic achievements?
2. What methods do you use in order to improve academic achievements of CSN within inclusive classes?

Teacher assistants' understanding of inclusive education

1. What do you understand by inclusive education?
2. How can CSN be fully included into classroom process?
3. In your opinion, what is the TA's responsibility in inclusive classes?

TAs' teaching methods implemented in inclusive classes

1. What methods do you use while teaching CSN?
2. What kind of books or references do you use in order to increase your knowledge and understanding in inclusive teaching methods?

Social interaction of CSN

1. How do you manage to include CSN into social interaction during classroom process?
2. Does active participation in class activities affect academic achievements of CSN?

Assessment tools used to evaluate achievements of CSN

1. How do you assess achievements of CSN?
2. Do you use individual education plans for children with special needs, and how?

Challenges of IE

1. What challenges are you facing in inclusive classes?
2. How do you manage to deal with challenges?
3. Anything which you would like to add or you want to talk more about this topic?

Appendix 2: Observation guide form

Categories	Descriptive notes	Reflective notes
Understanding of academic achievements		
Understanding of inclusive education		
Classroom arrangement		
Teaching methods		
Social interaction of CSN		
Assessment		
Challenges		

Appendix 3: Case Study Protocol (Yin, 2009)

CASE STUDY PROTOCOL	
An overview of the case study project	<p>How well do CSN improve academically within inclusive classes, and what kind of teaching methods boosts their achievements?</p> <p>Researched points: teachers assistants’ understanding of academic achievement and inclusive education; TAs’ teaching methods; social interaction of CSN; assessment tools used to evaluate CSN;; challenges of IE.</p>
Data collection procedures	<p>Finding well-situated participants to provide rich data; talking to participants about aims of the study and submitting informed consent; conducting the interviews with the interview guide questions by tape-recording; transcribing the interviews; next interviews for missing data; conducting observation based on interview data with the help of observation guide.</p>
Case study questions	<p>Transcribing interviews; personal records and comments; coding while transcribing; looking for similar and different points and patters.</p>
A guide for case study report	<p>Case study report is based on 6 categories: 1. Teacher assistants’ understanding of academic achievements; 2. Teacher assistants’ understanding of inclusive education; 3. Teacher assistants’ teaching methods implemented in inclusive classes; 4. Social interaction of CSN; 5. Assessment tools used to evaluate achievements of CSN; 6. Challenges of IE</p>

Appendix 4: Informed Consent

The researcher/institution: postgraduate student Farid Suleymanov; University of Oslo (UiO), Department of Special Needs Education; P.O.Box 1140 Blindern, 0318 Oslo.

The purpose of the study: A postgraduate dissertation paper in the field of inclusive education; academic achievements of children with intellectual disabilities in inclusive classes, and teachers' methods and teaching approaches to raise academic performance and achievements of children with special needs.

Procedures: Up to three informants will be asked to participate in interviews and they will include teachers and possibly the principal. The choice of informants will depend on school's suggestion, availability and good will of the participants. The study also includes classroom observations. The informants will be asked for the permission for tape-recording and video-recording, and the audio and video materials will be destroyed after the transcription.

Confidentiality: Your identity in this study will be treated as confidential. Your names will be anonymized – substituted by other names. The only person who has the access to the data is the researcher.

Participation: You are free to choose whether or not to participate in this study. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate. For your information, this project is approved by Norwegian Social Science Data Services.

Reference: Anne Arnesen, PhD Candidate UiO; anne.arnesen@isp.uio.no; +47-22859190

Sincerely yours,

Farid Suleymanov; UiO, Department of Special Needs Education; farids@student.uv.uio.no; (+99455) 751 75 70

Authorization: I have read and understand this consent form, and I volunteer to participate in this research study.

Participant's Signature:

Researcher's Signature:

Appendix 5

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES



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Vår dato: 26.06.2013

Vår ref:34759 / 3 / AMS

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 16.06.2013. Meldingen gjelder prosjektet:

34759	<i>Academic achievements of children with special needs within inclusive classes</i>
Behandlingsansvarlig	<i>Universitetet i Oslo, ved institusjonens øverste leder</i>
Daglig ansvarlig	<i>Jorunn Buli-Holmberg</i>
Student	<i>Farid Suleymanov</i>

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 15.12.2013, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen


Vigdis Namtvedt Kvalheim


Anne-Mette Somby

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Personvernombudet for forskning



Prosjektvurdering - Kommentar

Prosjektnr: 34759

According to the notification form there will be obtained verbal and written consent based on verbal and written information about the project and the processing of personal data. The Data Protection Official for Research finds the letter of information satisfactory according to the Personal Data Act.

The information will be registered on a private computer. The Data Protection Official for Research presupposes that the use of a private computer is in accordance with the routines for data security for Universitetet i Oslo.

When the project is completed, by 15.12.2013, the data material will be made anonymous by deleting directly and indirectly identifying variables and audio-recordings will be deleted. In order for the data to be fully anonymised, all directly identifying data, such as names/reference numbers must be deleted, and indirectly identifying data in the remaining material must be deleted or changed.

The Data Protection Official for Research recommend to give information about the project to the students and the parents before video-recording in the classroom, and that they are allowed to refuse to participate.