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The zone of proximal development in early childhood education

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This study was focused on the theory of the zone of proximal development in early childhood education. It is a theory developed by a Russian socio-cultural psychologist called Lev Vygotsky. The theory mainly focuses on developmental area of children that is measured between an actually achieved level and one that can be achieved with the help of adults.

The thesis was part of VKK Metro project that worked on developing early childhood pedagogies in the Helsinki Metropolitan areas of Finland. The project involved different day cares, parents and universities of applied sciences around the area to carry out the duty of developing new structures. I.C.E.C play 'n' learn English kindergarten cooperated as working life partner in this thesis work. They provided with the necessary background information and allowed the data collection to be done in one of their branches. Qualitative research method was employed to collect the data. It was mainly through systematic observation and participant observation that data was collected.

After the implementation of the data collection, it was possible to obtain significant findings. The findings were clear and helpful in finding out a way how ZPD can be used as tool of evaluation in kindergarten settings. The theory of the zone of proximal development can be integrated in various ways as an evaluation method for early childhood education. Moreover, it can not only be used as an evaluative method but it can also enable teachers to know their individual students better.

Keywords zone of proximal development (ZPD), intelligence, social development, early childhood education and observation

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1. Introduction

The zone of proximal development in educational work is the general theme of this thesis work which is specifically focused on the use of the approach in early childhood education setting. The term zone of proximal development (ZPD) refers to children's cognitive development that occurs essentially as a result of interacting with more knowledgeable and competent others, who are willing to provide guidance and support in problem solving situations and will sensitively adjust their help in such a way that the child is challenged to participate in activities beyond his or her current level of understanding. In other words it is the region between what children already know and what they are capable of learning under guidance. (Schaffer 2009, 127) This thesis has been done in order to answer the question of how ZPD can be used in early childhood settings in order to assess the social development of children. The question is narrowed and simplified to make the work reliable. The specific focus area is how to use the zone of proximal development in order to assess or evaluate the social rules among children in kindergarten settings.

The zone of proximal development describes the zone that is between child's actual development as determined by independent problem solving and the level of development as measured through problem solving by the guidance of adults. This zone has been a recent tool for psychologists and educators to understand the internal course of development. The developmental level that is located in this zone today can be the actual level of development for tomorrow. Education that is solely based on an already achieved level has been found to be ineffective as it does not consider the overall development. According to the theory of the zone of proximal development, children should always be faced with challenges in advance. From this view point, learning is not development but a properly organized learning process can bring the needed development. (Cole et al. 1978, 84-91)

In this thesis, ZPD was used as a method of assessment/evaluation to identify the level of individual children while they are still in their group. Children who share similar backgrounds like age, gender or social status may not necessarily share similar intellectual development. However, in educational settings there is a need to group children in order to provide them with the educational service they need. Usually, the grouping is based on age more than anything else. These children of the same age share moderately the same level of development in different areas. Nevertheless, there are always differences both in the actual level of achievement and the level that they have the potential to achieve only if they get limited support and guidance from adults. For this purpose qualitative research method was employed. Data was collected in two phases. The first data collection was through systematic observation on specific focus area of play and social rules among children. In this phase the

children were observed while they were having role plays in different play areas. The main interest was finding out the rules children use to make their play peaceful and the conflict resolution methods they use when conflicts happen. By using the results from this observation as a base, the second phase of observation was done to find out why they choose those resolutions. In the second phase, participant observation was used and the children were observed when they were having family member role plays.

The findings were satisfactory and answered the research question. Play is an important and meaningful part of children's life. It is more concrete and wider than providing the children with fun and happiness. It is their tool of learning the world around them and challenging the problems they face. As it is an important part of their life, they also want to play nicely. As a result, they come up with different rules and responsibilities. When rules are broken, they have ways of coping or problem resolution methods. It is not only that they solve problems in one way or the other but they have reason and explanation behind.

2. Background

2.1 Personal interest on early childhood education

One of the unique natures of human beings is that we possess intellect in a different and better way than any other animals. Every human being enjoys the fruit of intellectuality to varying levels. This includes ability of perception, remembering, classifying, understanding, reasoning, and thinking, problem solving, conceptualizing, classifying and planning. In short all those capabilities that human beings use to adapt to and make sense of the world. (Schaffer 2009, 241)

As people living in this world get the chance to develop and properly utilize their intellectual possession, they live better life in an individual aspect and contribute better to the goods of others. Education that is set in different institutions and at different times in history share one key purpose which is enhancing and fostering the intellectual development of individual students so that they can understand their world better and live their life at best in all possible situations. Culture and the values and norms of a society are transferred to the next generation through formal and informal education systems. Today's educational institutions that have evolved over the millennia in most societies are oriented to prepare youngsters to assume valued positions in the adult world. In other words, operations of schools give view on how particular society thinks about the realm of intellect. (Gardner et al. 1996, 247)

The detailed steps of education are far more divided in to small steps and pieces based on the level of education, age of students, facility and resource availability and specific purpose. Nevertheless, informing, exercising, on-going assessment and final assessment at the end are vital

In this particular study topic, understanding the social development of individual children in a group is special area of interest. This is because all the children with different intellectual and developmental levels pass through educational systems. If any identification and special offers are needed, it is primarily the schools/early childhood education centers that are responsible and at the same time able to do it. Gifted children are valuable and constructive citizens as of any other children. However, the special abilities that they possess make them in need of intervention than the others in order to achieve their level best. As it is mentioned in Anastasiow (2003, 117), good example on how giftedness apart children from their age mates and how it affects their interaction with their teachers is studied by Lewis Terman, a professor of psychology at Stanford University. He chose 1, 528 children with exceptional abilities through teachers' nominations and group intelligence test. He did the study for more than sixty years and came to satisfactory conclusions. Those children were portrayed as substantial contributors to their society as adults. They were found to do well not only on intellectual bases but also socially interactive, good in marriage, stable mental health and survivals of adverse conditions. However, there was also variation between men and women in their later success. it was mostly the male who tended to go in same path whereas the women combined family and career. Though this study had its own critics, it was one of the significant long run studies in this area. Another way of doing such research is taking the head performers and comparing them with the rest of the group. According to the responses gained both from teachers and parents these children had different characters from the majority of their group. Some of these characters are self-control, assertiveness, cooperation and academic competence. The realm of exceptionality can extend to the different directions. Some children on the other hand might have vulnerability to varying disabilities that can directly or indirectly affect their social development. The main one can be risk of developing behavioral disorders. Through proper assessment children at risk can be identified and early intervention can be made. (Smith 1998, 97)

Early childhood education is a stage of foundation for any child's future educational and social competence. It is highly important for a professional person who is working in the area to have the necessary tools and skills on how to prepare those children to become successful and constructive citizens. As such, integrating the idea of zone of proximal development to assess the child's level of cognitive development can be one key working method. Additionally and more specifically, emphasis on the presence of differences among children will help lots to avoid difficulties that happen when individuals are squeezed in a group. Teachers can reduce

such problems to a considerably minimum level if they can identify their individual students and recognize their differences. Interaction and involvement of teachers with children make evaluation different from how it is usually done by giving it a different angle of view. This can help to learn not only why an action is done or a word is said but also why. This saves time and cost besides the benefit it brings to the children. Ideally, such evaluation method and the information it gives for the next planning help the child to maximize his/her development. If more research is done and specific working methods are developed, there will be a better chance for all children to contribute significantly to our world even more than it has been done until now.

ZPD as an evaluation method can also be beneficial in multicultural early childhood education settings. Children that are not from the mainstream culture may not have the language and other cultural tools that enable them to stand at the same level with the other children when they are measured by the general yardsticks. However, these children can get the fairest evaluation through adult's close observation and participation in their different tasks. They can be understood not only as what they do but why they do it or how they are told from home to do that specific task.

The writer has great interest in the topic and has had different questions and perceptions on the area for a long time. This is partially based on personal experience and partially based on what is observed from daily life. Especially in developing countries where facility is not available in a satisfactory level, human resource can easily be ignored and no one would ever consider it even as wasted or lost. When this topic area was chosen, it has been considered as a good chance to read more and do a small research on the area of social development and how it can be promoted to the fullest to help children reach the highest they can reach as individuals.

2.2 VKK-Metro Project:

In 2009-2011, the VKK-Metro operates as part of the top Family project. The project is part of Southern Finland, voice of the child-development program. The project of the Early Childhood Education in Socca is the center of expertise on social welfare in the Helsinki Metropolitan Area. It develops customer work by means of practical research and strives to bring together the development networks of the municipalities, educational institutes and organizations in the metropolitan area. Similarly to tight collaboration with universities, Socca is currently strengthening ties with universities of applied sciences: Metropolia, Diak and Laurea. The co-operation produces, for example, thesis and work practices.

The project is focusing to the development project for early childhood education, which develops early childhood education pedagogies, the partnership of children, parents and staff, as well as strengthening their participation in daycare. The daycare staffs are developing their work and expertise in the area of early intervention, multi professional co-operation and evaluation. The thesis works are implemented in Espoo five Research Kindergartens.

Early Childhood Development in the metropolitan area VKK-Metro includes both permanent structures for the development of creative projects and those that are changing. Changing day care through a network of research aimed at creating as many day-care units in the metropolitan area of continuous development structure. At the same time it is also aimed to inspire their own work in research and development. The development themes of everyday life leaving the basic work of current challenges encountered.

VKK-Metro's funding consists of project funding and the metropolitan area municipal contributions. Research and development form a whole, which will improve the everyday work. VKK-R is brought close to the subway and into the practical work. Employees are offered route by which the practical challenges of research to seek and find solutions.

A basis for development was made in 2006 with University of Helsinki, day care and early childhood co-documentation and evaluation of research. The study identified the City of Helsinki kindergartens' assessment strategies, evaluation methods, evaluation practices and evaluation items. (Socca 2009)

2.3 I.C.E. C Play & Learn kindergarten as working life partner

International Childcare and Education Center is an English speaking kindergarten that promotes early childhood education and care for children under the age of seven. It was established in 1989 under the name of "The International Play School". It later made change on the name to better express the purpose and service of the kindergarten. It now operates in six branches both in Helsinki and Espoo metropolitan areas.

Its approach to education is one which recognizes the importance of both whole class teaching; (presenting the children with an exciting new concept or idea), and of giving the children the freedom to experiment and explore, using hands on activities to complete the learning process. To enhance learning and wellbeing the school gives emphasis for the environment where the children spend their time. It is usually curiosity provoking that allow children to wonder and experience different things.

Many activities in the preschool and schoolroom sections are provided to enable a child's skills to develop: art and craft area, language and literacy area, design and technology area, science and math area, small world play, house shop, P.E area, book corner, nature area etc. All of these areas are designed to foster concentration, imagination, conceptual ability, hand eye co-ordination, social and emotional development, and physical development. Reading, writing and mathematics like all subjects are taught through whole class teaching, topics/themes and the environment the teachers provides. Besides, multiculturalism is the strong element in the school that a child is taught to recognize that we all are different.

The school combines the Finish Early Childhood Education policy with the British Key Stage-1 curriculum and the Early Years Foundation Stage (EYFS). EYFS is a framework that sets mandatory for schools and early years providers since September 2008. Its core element is the idea that Every Child Matters sets out five major outcomes for children. These are being healthy, staying safe, enjoying and achieving, making a positive contribution and economic well-being. It works towards these ends through different ways. There are standards that are used to make sure that every child is progressing and no child is left behind. It is also important to provide equal opportunity without any discrimination. The other means of attaining the goals mentioned above is creating a partnership between different settings that the child attends. Parents and health care centers are the main. The early years educational providers need to be under inspection and regulation. It is also important to identify and lay foundation on the child's special interest and talents. Within EYFS assessment is an integral part. The assessment basically relies on everyday observation. It is believed that observation can help to build the meaningful picture of child's feeling, development level, interest and the like. (Hobart et al. 2009, 137-138)

In addition to the EYFS described above the English national curriculum have key stages that are divided in to four. Year 1 and 2 of primary school are key Stage 1. The years between 3 and 6 of primary school are known as Key Stage 2. Years 7 to 9 of secondary school are Key Stage 3 and the last one are years of 10 and 11 which are under Key Stage 4. For the Key Stage 1 and 2, compulsory subjects include English, math, science, design and technology, information and communication technology (ICT), history, geography, art and design, music and physical education. Schools also have to teach religious education from which parents have the right to withdraw their children. It is also advisable to include the personal, social and health (PSHE), citizenship and one or more modern foreign languages. (BBC schools)

All the areas mentioned above are clearly set in the curriculum to make planning sessions and activities easier and to make sure that everything is done in the right track. Planning is always followed by implementation. The key teacher has the responsibility to follow the child's way of doing activities and outcome. They put down their observation on the

observation sheets that are available all the time in the schools. In doing so, the teacher writes the name of the child, the date and which developmental area that particular observation covers. After that the teacher writes down the observed achievement of that child in that particular activity. At the end of each activity, a teacher is expected to write action plan that is based on the current achievement of the child. These observations from different works are collected and compiled in individual portfolios of the children.

At this point one can ask why there is a need to test a different or new way of evaluation and can add why specifically the zone of proximal development. It is worth asking as explanation can be given here. After going through the planning, implementation and evaluation techniques that are presently used in the kindergarten, the addition of zpd as a tool has been believed to be a complementing advantage. The currently used methods are useful and applicable in many contexts however, all of them mainly rely on teacher's observation from a piece of art or math sheet done by the children that only show the development that is actually achieved. On the other hand, the theory of ZPD offers a different way of observing, evaluating and teaching children which is not among the common ways that are currently used. According to it, teachers or adults can go down and do the activities or participate in the plays with the children to identify between what the children have actually achieved and can potentially achieve with the help of others. Not only evaluating it but also the theory suggest achievements can be reached in that way by involving children with adults of higher mental development stage than them. Such involvement can also allow teachers or adults in general to understand child's world better. They can learn the explanations behind things that seem to be done wrongly from their point of view. ZPD can provide the tool to learn the child's world better.

3. Literature review

3.1 Intelligence

3.1.1 Perspectives on Intelligence

Intelligence was put into consideration and debated in different forms beginning from the time of ancient Greek philosophers. Among the classical views the one that was boldly marked was Immanuel Kant's perspective of intelligence. He brought reconciliation to the empiricism and rationalism and a challenge to science of psychology. For the empiricists and rationalists seemed to stand at two opposite ends. The first argued that thoughts arise from experience and sensory information whereas the later argued that it is the innate nature of

mind that formulates knowledge independent of experience and sensory messages. Kant came up with an idea of combining the two, arguing that it is both our innate nature of intelligence and experience that help human beings to have knowledge. The intrinsic nature exists prior to experience however we partially rely on our sensory experience. He further argued that difference among individuals is a result of this combination that we all experience same thing by our sensory organs but interpret it differently in our minds. He also strictly mentioned that mind cannot be studied scientifically as it is not a material base. Furthermore, he insisted that the mind is always on a continued change even when it is under study so it is impossible to scientifically study it. (Gardner et al. 1996, 36)

The scientific view of mind, unlike Kant's argument, has gone through the study of brain. It considers the brain as an organ and studies the different nervous systems. There were also some attempts of laboratory test of brain when a person is at different situations. The attempt that was made to study Einstein's brain was result of this scientific outlook. This theory is basically established on earlier philosophy of connection between body and mind. Furthermore, it studies in detail the brain itself as a structured organ and how it functions. This view has also findings on the genetic similarity of brain and intelligence among family members. Among significant outcomes of this view was the evolutionary theory. (Gardner et al. 1996, 136)

According to the developmental perspective, mainly Piaget's theory of intellect is innate and develops through experience. There are three core elements of it; equilibration, assimilation and accommodation. Equilibration is the unceasing process whereby individuals throughout life attempt to integrate their diverse experiences into unified, stable wholes in order to avoid the tension that would result from conflicting mental elements. Assimilation is the transformation of incoming information so that it fits existing ways of understanding, even though that information may thereby be distorted to some degree. Accommodation on the other hand is the adaptation of existing ways of understanding to new information. (Schaffer 2009, 125)

Cognitive perspective of intelligence has much of its findings on the way of an attempt to formulate an intelligence machine. To make such kind of machine, it was highly important to find out the details of intelligent processes. The convergence of these investigations with the rapid development of computers paved the way for cognitive revolution. The revolution put more light on intelligent machines, both mechanical and biological, and how they use and process information, solve problems and learn. (Gardner et al. 1996, 162)

3.1.2 Intelligence and social development

Interpersonal relationships have been categorized as either vertical or horizontal. The former refers to relationships between two partners of unequal knowledge and power, such as that between parent and child; the latter to egalitarian relationships where the participants have similar social powers, as found among same-age peers. (Schaffer 2009, 171)

So far studies have inclined in classifying children based on their individual characters as intelligence, anxiety level, artistic ability and so forth. However, the interpersonal classification such as how they function in a group has been of low area of interest for researchers. Nevertheless, a great deal of research is now being conducted on peer relationships, and a considerable part of it makes use of the concept of group status.

Schaffer (2009, 173) mentioned that in these studies, acceptance and rejection are main elements of group status. Almost all children seek to be liked by other children and put effort to get what they want however more than few fail to have that peer acceptance. This has led to further studies which have found that there are two types of rejections as rejected-aggressive and rejected-withdrawal. If children are aggressive and unwilling to compromise in group, the others will take the initiative to reject them. On the other hand, rejected-withdrawal refers to the case where children take the initiative to detach themselves from the group. Such a tendency is associated with the unique pattern of electrical brain activity. Studies have indicated that this behavior can be changed through time by encouraging experiences.

Peer status is important not only in the current development of children but also predict the future psychological characteristics in the coming years. The effects can be divided in to two as externalizing problems and internalizing problems. Those children who face rejection-aggression can develop externalizing problems like delinquency, truancy, violence, bullying and poor educational achievement whereas children, who take the initiative of withdrawal by themselves, tend to internalize the problems and develop depression, anxiety and loneliness. As peer status is important in the future mental, psychological and social development of children, it is important to investigate how it differs among individual children. One approach for this is studying the mental process children employ when they interact with others. This approach can let identify any social skill deficit present among children with unsatisfactory social relationships with their peers.

3.2 Social development of Children through play

3.2.1 Play and child's social development

Play is a leading factor in child's development. It will also be narrow to define it as an activity that gives pleasure to the child. Pleasure cannot be a defining character because it tends to ignore the fact that play fulfills child's need in a specialized detailed form of enhancing intellectualization. (Cole et al. 1978, 92)

A child does action more than s/he can understand however preschool play is the time when children start to have structure of actions that are determined by meaning. Play helps them to think independently and perform in roles that they imagine. In the beginning, a child playing with doll might only repeat what the mother says; through time, independent thinking and own perspective develop leading the child to play imaginary mother's behaviour than one's own.

At the end of development rules emerge, and the more rigid they are the greater the demands on the child's application, the greater the regulation of the child's activity, the more tense and acute play becomes. (Cole et al. 1978, 103) Play, especially an imaginary role play, can be regarded as a means of developing abstract thought. It also serves as a foundation for the latter different school activities that should be done based on a certain instruction or rule. Parten (1932) as quoted in Birch (1997) not only play shapes the social development of a child but also there is order of development that can be seen in the child's style of play. Children until the age of 18 months are engaged with solitary play that mainly focuses on play with toys. The three old years are usually alongside of other children. This is called the parallel play when children play next to one another but not together. When children are around the age of four and above, they become social and interaction takes place during their play times. Other researchers like Cohen have argued that these stages are not strictly following one another as children sometimes mix different styles of play. (Birch 1997, 55)

The above general forms of developments that result from play facilitate the social development of the child. In role play, they learn how to be a sister, a friend or a father. Through plays they learn which behaviors are acceptable and which are not. Furthermore, they can also explore themselves and learn what type of behavior they like and which ones that they cannot tolerate. It fosters both the interpersonal and intrapersonal developments.

3.2.2 Play and social rules among children

It is mainly through play that children establish and develop friendship. As any friendships, pre-schoolers' friendships have also their own stage and paths. In the beginning one tends to be the shadow of the other and it is more of full of agreements. Later, it is common for such friendships to turn in to being competitive. They can be competitive about anything like who made the biggest mud pie or whose socks can go up higher. At this stage children use their friendships for making further self-definitions. When these competitions go higher they end up in conflicts and physical fights. However, as the pre-school children get older one of the things they learn is negotiating a compromising that allows for a shared relationship. Compromising is not always the happy thing to do but if it is missed the result is even worse that ranges from verbal fights to physical fights. Children can also face difficulties when they feel they are excluded from plays or when their close friend is playing with another child. However, exclusion in most cases can be attributed to the limited social understanding and skills of preschool children rather than from intentional cruelty. (Segal 1998, 205-209)

Obviously children feel good and powerful when their plays allow them to take parental roles, control the future and make their dreams come true. They usually prefer to take the role or characters that they believe are ruling. Most wanted ones include being mother, pilot, driver, police officer doctor or superhero. Sometimes they tend to copy actions that they have watched on television. At times by taking such powerful characters they tend to tackle their own fears. A child might pretend to be Spiderman and explains the character: Spiderman is not afraid of fire or the night, he is not afraid of loud bombs, he is not even afraid of spiders and kisses. When children play by taking roles there will be competition to get the powerful role. Again bossiness or fair share works in the division of roles. (Segal 1998, 242-244)

In general, in typical pre-school class room there are leaders and followers of different type. There three types of leaders. The first of this is the leader-type who usually takes role of dictator in a pretend family or hospital. Such child assigns roles to her/his faithful followers and controls the flow of the play. The second type is that of 'teacher-helper' type, that tends to take a mild leading role. These types of leader children are not so dictator rather they try to please most of their members and still lead their group. The salient characteristics of teacher-helper are their reliance of reason and persuasion. They also have good ability of moderating quarrels. The third and the not so common ones compared to the above two are the 'monarch' style leaders. These leaders use their position or power mainly to entertain their group than making their ideas being accepted. The above mentioned leaders have their own preference of play and interests. For the directors control is the most important thing where as for the monarchs it is all about having fun and making the group as big as possible. (Segal 1998, 242-244)

The directors do not like big groups as they have fear of losing control. The teacher-helpers like intimate plays where they can take advantage of their verbal knowledge. (Segal 1998, 219-221) The most common role for pre-school children is assuming the role of followers. They select a play group and they stick to it. Usually they are satisfied with their choice that though they can change their group, they do not. However, some children do not fall in either of the above mentioned types. These children can be successful in either ways. They are good leaders when they have better ideas and they easily follow at other times. (Segal 1998, 219-221)

A relatively common type which cannot be included either under a leader or follower is a vassal type. These children usually hang with the group leaders but they are not leaders themselves. Their source of power is that they are intimate with the leaders. They can be bossy on the other followers as they are vulnerable from both sides. They are threatened always to lose their power and position. (Segal 1998, 219-221)

3.3 The zone of proximal development

3.3.1 Theory framework

Lev Simenovich Vygotsky was the first person who used the idea of the zone of proximal development. He was born in 1896 in Russia to a middle class Jewish family. He had interest to history, philosophy and language studies. His work got recognition mainly after his early death. (Kozulin ed. 2002) Although Vygotsky devoted only limited space to the zone of proximal development in his description of socio cognitive theory, the concept has become the best part of his work. ZPD is an expression which Vygotsky used when he was trying to explain cognitive development. According to this outlook cognitive development is not a spontaneous process but occurs with the child's interaction with the physical world. It happens when children are embedded in social context, surrounded by people of greater expertise willing to share their knowledge with the child. Cognition is socially created and ZPD is way of bringing this about. The child in the context is far way important than the child in-isolation. Thus, the cognitive development can be seen as the transition from inter-mental to intra-mental through which the child acts as active partner in the learning process with its dynamic and mutually adjusted nature.

The zone of proximal development has further use in the assessment of intelligence. Vygotsky approached the long accepted procedure that children's true capacities can only be revealed by test administered to them in isolation. He argued that their ability to profit from assistance from adults can tell a lot about their capacities than their efforts at unsupported problem

solving. It is the buds of development that are found in the ZPD and not the fruits. Moreover, it is the buds of development which are important for diagnosis in order to predict and work for future progress. (Schaffer 2009, 125)

There are basically two levels of development in a child's developmental span. The first level can be called actual developmental level, which is the level of mental development of the child that has been established or achieved. This is the level that is usually used by different tests to measure child's mental age. In many studies it is generally accepted that children are developed only to the level that they can perform independently on the basis of how and to what level of difficulty that they solve problems. The second level of development is more visible through the light of the theory of the zone of proximal development. This measures the level of development or potential a child has when s/he works with the collaboration of others and most importantly adults. Imitation can serve here as a good example. Children are not able to imitate everything though they are able to imitate actions that go beyond the limits of their own capabilities. Adults can serve here by handing imitations which are above the child's development and at the same time not at the level that they cannot even try to reach. This idea can be strengthened with the findings of Piaget and others. Higher mental processes like reasoning develop when children in a group engage in arguments to prove one's own view as correct. They later internalize and begin to perceive and check the basis of the thoughts. In same way language at the early age of a child serves only as a means of communication but through interaction it is developed as internal speech and is used to organize the child's internal thoughts. (Schaffer 2009, 125)

To conclude, development does not coincide with learning process. It lags behind the learning process which leaves the area for the zone of proximal development. That area is where the child needs assistance of adults in order to reach the next level of development. (Cole et al. 1978, 84-91)

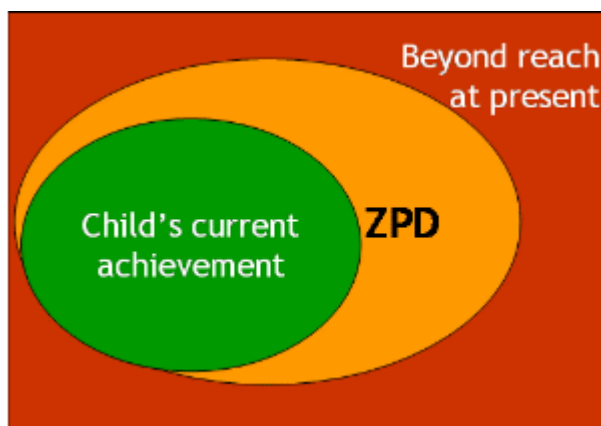


Fig.1 The zone of Proximal development

3.3.2 The zone of proximal development in play

Vygotsky shared similar view with Piaget in a way that they both look at the child as curious and problem solving being who plays active role in its own developmental procedures. Furthermore, Vygotsky acknowledges the role of more knowledgeable others in the child's development. He believed that the child acquires the framework of thought and thinking from the adults that it interacts with. These knowledgeable others provide the child with scaffolding that it works towards greater understanding. (Birch 1997, 80-82)

According to Vygotsky, language development and cognitive development are highly interrelated. Language is the tool that individuals use to organize their thoughts. However, it is also dependent to the culture around and the level of support available. Based on Vygotsky, there are three major elements that lead to a fully child's ability to respond to the world through action. This basically does not demand language. On the second level, the child is expected to reflect on her own ideas through language. It can be self-talk to solve a certain problem. Thirdly, learning of the world happens through cooperation in different social settings. It is when children interact with parents, peers, teachers and other significant people in their lives. The children learn their culture through art and language, comparisons and explanations, songs and plays. It is emphasized that children learn through knowing their culture and using it as framework to understand their world. (Birch 1997, 80-82)

Vygotsky saw play among children as major contributor to the overall development of children. He paid special attention to rules of play. When children are faced with problems or when they are challenged, they create a make-believe condition which is easier to cope with. It is usually in such conditions that rulers can hospital. The rules they come with can make them behave in a manner which is out of the reality around them. This is usually noticed when children have role plays. He believed that play creates a 'zone of proximal development' in children's level where they act or operate above their normal age level. One way of assessing a child's potential development at a particular time, Vygotsky believed, is to note the distance between the levels of activity reached during play and those of her customary behavior. (Birch1997, 57)

3.3.3 Teaching methods that address differences

A well-known and empirically established fact is that learning should be matched in some manner with the child's developmental level. (Cole et. el., 1978:85) This means education should not be above the child's developmental level or under as both have their own negative effects. If it is over the child's level, the child will never get it on the other hand if it is under

the child's development, it results that the child lose interest in the subject and worse case in academy as a whole. (Anastasiow 2003, 121)

The zone of proximal development can be adopted in a way that it can serve as a teaching method and at the same time way of assessing children who are on the two different developmental levels mentioned above. Adults actually participate in a joint task in order to help children become independent problem solvers. When a child is struggling, the tutor must immediately offer more help. When the child is succeeding, the adult need to step back and give chance for the child to do it more independently. In such a way ZPD has been used in a large number of studies investigating a range of problem solving tasks. The general theme conveyed by Vygotsky and other socio-cultural theorists is that cognitive growth can be understood and supported only by recognition of the social origin of mental process. (Schaffer 2003, 129)

3.3.4 Examples of educational systems that apply ZPD

The aim in this section is not to mention all educational systems of different levels that use the theory of the zone of proximal development as part of their pedagogical base. However, here are two examples in which the theory has been used to serve educational purposes.

The first one is the example from New Zealand. Te Whāriki is New Zealand's early childhood curriculum that assumes a holistic bicultural perspective for childhood. The term Te Whāriki means a woven mat that can serve as a common place for children of different age and cultural background to share many patterns of ideas and philosophies. When the approach came in to being in 1996, the initiative was taken by the government as part of its plan to achieve economic success in the country through improved education.

Its study has been done over an extended period from 1991 to 1996 and involved the consultation and participation of different professionals. When it was introduced it came with new and holistic approach that opposes the stage/ development-based earlier curriculum. It was not mainly focused on emotional or physical development or any similar areas rather the holistic development of a child as part of the society in diverse culture. This curriculum also recognises the difficulty to study the 'universal decontextualized child' as development is culture related and our world is multicultural. Empowerment, holistic development, community and family and relationships are the main goals of the curriculum. In order to achieve these goals the approach is based on socio-cultural approaches that take learning as result of social interactions and communications. (Miller & Pound 2011, 150)

Te Whāriki adopted the Vygotskian model in a way that teachers should take an active role and engage in activities with children. In other words, learning is not natural but social that

happens when children are given the chance to participate in the society. They learn from their own actions as part of their peers, adults and the society in general. This allows the children to be more competent than they are alone and independent. (Miller & Pound 2011, 152-153)

The second example is a project that has been carried out in a Danish elementary school. Vygotsky's zone of proximal development connects a general psychological perspective on child development with pedagogical perspective on instruction. The project was aimed at creating a better instruction to teach scientific experiments for elementary school children. The researchers were working in collaboration with the teachers and it lasted for one academic year. The theory of the zone of proximal development has been mainly used from two perspectives. One is that, Vygotsky believed that it is important to know the measure of both actual child's development and the one that can be reached with the help of adults in order to come up with right way of instructing subjects. The second angle was that the actually achieved level of child shows the child's ability to manage everyday matters while the zone of proximal development shows the child's understanding of scientific concepts. (Daniels 1996, 171-174)

The school's task was generally considered to pass knowledge but the children might not be able to change the theory in to reality. Here comes Vygotsky's view of actual development as managing the knowledge as everyday life aspect or keeping it on the zone of proximal development as only scientific theory. In the analysis process two problems were identified among the children in terms of understanding the subject matter. These problems were content problem and instruction problem. The first one happens when the children are not able to understand the subject matter introduced to them while the second one is the planning and implementation of instruction does not meet the level of children and they encounter problem of learning because of it. To solve these problems, the theory of the zone of proximal development was adapted in class rooms so that the children were working in group most of the times doing experiments and discussions. All then children were also constantly forced to act so that they could learn better than following the normal teacher lecture by sitting down as a group. (Daniels 1996, 177-182)

4 Research methodology and data collection

4.1 Aim of the thesis

The aim of the thesis is to find out how the zone of proximal development can be used as evaluation/assessment tool in kindergartens or any early childhood education and care centres. The thesis aims at finding out how the theory can be adopted with other methods that are currently used in kindergartens. The thesis is part of a project that used to work around the improvement of early childhood education and especially the evaluation methods and criteria. As a result, it is one of the aims of this thesis to contribute for the development of evaluative methods in kindergartens. Besides, the working life partner, i.c.e.c Play 'n' Learn English kindergarten could also benefit from significant findings of the thesis.

4.2 Research question

The main research questions were the following:

- A. What does the zone of proximal development tell us about the social development of children?
- B. How can it be used to evaluate/assess social rules among children in kindergarten settings?

The general aim of the thesis is to formulate a way or method how the theory can be used to assess or evaluate the social development of children in kindergartens. However, social skills development is a vast topic to be completely covered under this thesis work. As a result the research question in this thesis has been narrowed down to evaluation of social rules among children as one sector of social skills among children. The writer believed that this makes the research process focused and the findings more reliable and relevant.

4.3 Research methodology

Though in the past, observation has not been the most favoured qualitative method of field work, its season of deception has passed. It has also been realized that in some circumstances it is the only way of studying that place or event where there is a need to use most of our sensory organs like including the sound and experiencing the smell. However, it is important to distinguish between observation as a qualitative data collection and participant observation. Participant observation assumes a primacy of immersion and interaction within a specific environment where as the first form of observation is not so site specific and can be also used with interview. (Padgett 2008, 90) Observation is time and space limited and it has

physical boundaries. It basically follows who is present, what is happening, when is it happening and where. Besides, why that action is happening or how are never the direct objects of observation as they demand the observer to make own inference and structure of behaviour. (Hall 1996, 226)

Assessment is a normal component of everyday life. The essence of which is observation, the noticing of some characteristics. (Das et al. 1994, 5) It is true that assessment is done consciously and unconsciously in different settings and for different purposes. Especially when it comes to assessing intellect and level of cognitive development which are highly sophisticated and difficult to assess in numerical terms, observing certain characters is the best way of doing it. As the core point of this small research is to find out that how productive or useful it would be to use ZPD in the process of assessing the level of kindergarten children, observation will be used as a research method.

The writer of this thesis found observation as best method to use for this research purpose because it enables to get first hand observation and what is happening at the moment. Here numbering is not important at all as the focus is on the uncountable traits of human being's communication and social skills.

There are essentially two kinds of observation research methods used in social science. The first is systematic observation which has its origin in social psychology and the other one is participant observation that is often used by sociologists and anthropologists. These observation methods though they are different they also share some similarities. They both rely on direct observation; they both are dedicated to collect data from real life situation and try to understand it from its natural setting. Finally, they both deal with the conflict of perception. (Denscombe 2003, 192-195)

4.3.1 Systematic observation

Systematic observation came up with the following solution in order to tackle the problem of producing different data from same setting by different observers. Observation schedule is a kind of checklist that contains items that needed the observer's full attention. In these ways the observer will monitor the items contained in the checklist and make a record of them as they occur. In systematic observation the main thing is measuring and recording how many times and event occurs or how long some event continues. (Denscombe 2003, 192-195)

Observation schedule usually bases on literature review. As it is important to know exactly which points to include in the checklist, previous researches and theories provide the key. It would have been in general nice to include many things but that is not practical. Therefore,

researchers need to prioritize the most significant and the most relevant. These types specific observations can always be backed up by collecting general background information. (Debscombe 2003, 192-195)

Systematic observation was found to suit best the purpose of this thesis in two ways. One is that it gives specific focus areas of what to observe during data collection so that time and energy are not spent on irrelevant data. Moreover, when data collection and focus area is widened more than needed there is a threat of losing starting point and collecting confused data which can make later analysis difficult and unreliable. Secondly, as this study started by building theoretical base through collecting literature reviews, the checklist can help in putting some of the most relevant topics that will at the end help to answer the research question.

4.3.2 Participant observation

The second type is participant observation. The researcher is like an undercover agent whose success depends on remaining undetected, whose purpose remains top secret. Here the logic is that if no one knows who the researcher is and why s/he is present, then everyone acts normal unaffected by the awareness of the observer's presence. Even though hidden identity of researcher is core element in participant observation; there are still differences in this sector. Participant observer can assume different levels of revealing oneself. The first is total participation where the researcher's role is kept secret. The other one is participation in the normal setting where the researcher is known to few important people the remaining stay uninformed. The third one is where the researcher can inform and get consent from the informants which is known as participation as observer. (Denscombe 2003, 201-203)

Observing the pre-schoolers is interesting in different ways. It is the first stage in human nature that participant observation can be undertaken. Children less than the age three are not capable of making verbal interaction. In addition, it is only at the age of three that they start developing the sense of belongingness to certain groups. As a result, it is only after this time that participant observation in their groups can become true. Although participant observation is in general assuming equal status with informants, it is difficult to implement this with pre-school children. Trust can come across as big question. One approach is to keep adult status and role and be satisfied by what can be gathered in this way. Some researchers who have used this method have witnessed that in the beginning they have faced many questions on who they are and what they were doing there. However, as no response came out, the children lost interest almost to zero level and continued their normal life. The other one is to go down and join them at their level by simply taking a child role. In this

approach consistent behaviour is important as that is mainly how trust from the children is gained. (Fine and Sandstrom 1988, 36-47)

Different ethical issues are also faced in doing participant observation with Kindergarten children. The first and most important of these is adult policing and adult role. It is natural for children to seek for help or policy implementation for protection. It is critical for researchers to ignore everything or to intervene. Some researchers have taken the non-intervention view to its extreme extent that they did not interfere in cases of fights between children. It is always advisable to refrain from adult policing but never ignore the adult responsibility. The other debatable issue is informed consent. One might ask how these

children understand the nature of research; they can if they get the explanation at their level. They can be told that a strange person will watch them and play with them to learn what they like or what they do not like. This helps always to bear in mind that children also have their own rights. Children struggle to learn adult world as we do to learn theirs. There is always struggle taking child's explanation as full by itself to understand the child's action. This is because their world is a legitimate lived reality though they are still immature in certain areas of development. (Fine and Sandstrom 1988, 36-47)

Theories come partly from evidence and partly from beliefs and ideas. Induction and deduction are issues discussed in sociology in relation to backing up theories. Induction refers to specific observations that later grow in to theories. On the other hand, deduction uses theory to explain observed actions. (Hall 1996, 33)

For this thesis purpose deduction serves best as it is based on get meaningful and practical outcomes that are based on the theory and its potential use in the early childhood education. The advantage that one could get from participant observation which might not be obtained from systematic one is that it allows having conversations and collecting information that is beyond observing actions. In systematic observation the observer gets usually the information of what happened, by whom and how many times. Sometimes recording the actions may not be enough to answer some questions. In such situations participant observation allows to dig deeper. This thesis work needs explanation or reasons behind some actions that are difficult to gather without verbal communication. The writer chose participant observation and not interview which also allows conversation because participant observation is conversation that is held in an informal and relaxed environment that helps the child to feel empowered and relaxed. In turn this can help to get better quality and more amount of information needed.

4.4 Data collection

4.4.1 Sampling

Strategic sampling method has been used to choose the sample group from the population. In this case the population is not big number; it consists only fourteen children that come to the day care for a half day service in the morning. To pick sample group, strategic sampling method has been found suitable as it was necessary to choose the sample based on certain criteria. The choice was made based on age, level of English language and sex to make the sample group representative.

4.4.2 Implementation

The research was carried out in I.C.E.C kindergarten branch which is located at Meilahti. Because of increasing number of children and lack of enough space, the branch is divided in to two parts. The observation was done at a center where there are totally thirty children that come to the kindergarten in shift. There are fifteen in the morning and another group of fifteen in the afternoon. They are pre-schoolers between the age of 6 and 7. They spend half of their day at the primary school next door. They speak English language very well. However, among the thirty children who belong to this group seven were selected as a sample group. They carry out all the learning and other indoor activities in one large room. Two adults work with them.

Before any action was taken, letter of informed consent was sent to all the parents of the morning group children. Based on the number of permissions got, the sampling was done. The observation was implemented in two phases. The first phase was the one that systematic observation method was used. It was done for five school days during the morning time. The sample group consisted of four girls and three boys. The children were observed while they were having their role plays at home corner and floor toy areas. On this period, the main interest had been observing how children make social rules amongst themselves to keep their plays peaceful. Each child was observed for an average of one hour a day. That does not necessarily mean that the writer was observing a specific child for one hour continuously. There were breaks in between as the children tend to change plays and play mates every now and then. It is also important to mention that it is not always the case that children who are under the focus of the observation play together. During the process even though the children under focus were playing with different children, the writer of the thesis has been careful in paying full attention to those who were under observation.

During the observation no name of the children was used instead reference number that only the writer knew was used. The only means of information gathering was writing, no voice or image recording devices were used. The writing process was mainly based on the table of the observation sheet. The table used during the observation was the main guide for the specific areas of focus. Every day one sheet of observation was used for the seven children. Information was recorded mainly in the table but in cases of significant points that need extra explanation, notes were put at the back of the paper. The period was mainly planned to be for one week or five school days however absence that was mainly caused by contiguous disease has extended the time to two weeks in order to collect enough data.

With this group the objective of the observation was interaction between children during their play time. How the zone of proximal development does manifest itself and how can it also be used to make observation and evaluation of the social and emotional developments of the children. This includes how they share roles during play time, what rules keep the play peaceful, what common sources of conflict prevail and how they manage to solve them. These questions were the center of the data collection process as it was basically aimed to answer these questions.

The analysis has been going hand in hand with the observation to keep freshness of the mind and the experience. When the first phase of observation was done and the data was analyzed, ranges of satisfactory findings were obtained. These findings were used as a base for the second observation to guide the focus area. During participant observation, the focus areas were specific so that deeper insight could be obtained. More or less, the interest remained the same in the second phase except that it deepened in to finding out why they choose to use the methods they use to solve their problems. Participant observation has been used in order to keep further interaction with the children while they play. As the interactions led, discussions and conversations were held between the writer and the children. This gave the chance to deepen the sight and look for explanations that are actually given by the children for their own actions.

However, no research is free from its limitations. It is always important to note down that the very presence of an adult observer will in a way shape or mold the naturally going play of the children. It is impossible to take the nature of the 'invisible man' and completely avoid such negative influences. However, it can be reduced to a considerably minimum level by following the ethical ways of doing each type of observation. The data collection was not completely secret for the children under observation. They were already informed that there would be somebody around them that has interest to know how they play. After the analysis of the first phase observation, the second phase of observation continued right away. The method used was mainly participant observation. The observer was participating with the

children in their plays. The participation was full in a sense that the writer of the thesis was sitting down with the children, playing with the toys they were playing with and sharing characters and other choices that were needed to be made. Based on the main goal of the observation, the observer held conversation in all the possible conditions as it was mainly through interaction that it would be possible to learn their explanations for their own actions. At the beginning the children found it funny and did not take it seriously however they soon accepted the presence of an adult to play with them and continued their play as normal. They had shown some level of curiosity when the writer of this thesis tried to keep conversation them. Nevertheless, they were able to keep conversation and provide information. Some of the ethical issues in this regard and in other areas are discussed in the ethics and reliability section.

4.5 Method of analysis

It is important to note these factors when one talks about the analysis of qualitative data. Qualitative data is either concerned with the meaning of words from users' or societal point of view or the pattern of behavior which is a social action like tradition, rituals and relationships. These are expressed as patterns of behavior, cultural norms and types of language used. The analysis basically revolves around the interpretation of data in either ways. (Denscombe 2003, 267)

According to Denscombe (2003), in qualitative research and its analysis there is also unalienable part of the researcher. Here the researchers themselves take different stand either to refrain involving personal values, knowledge and experience in the data analysis or to add the researcher's identity in the analysis work. Mainly, feminists and black researches on the topic of race take the later view and argue that it is to the maximum advantage of the readers as the results cannot be complete without the input of their feelings and experiences of that particular life.

Silverman (2000) as quoted in (David 2004,194) identifies four way of developing data analysis at the same time data collection is being done. These aspects are first, focus on data which are of high quality and are easier to collect. Secondly, focus on one process at a time within those data. The third is narrowing down to one part of the process. Lastly, compare different sub-samples of the population. It is also important to note the clash between content analysis and discourse analysis. Content analysis believes that it is possible to identify contents in to units. Thus one data is one chapter and the other is the second chapter and so on. However, others argue that this turns the qualitative research into quantitative and cause it to lose its advantage of being qualitative. For these groups discourse analysis is then preferable. It basically depends on narrative analysis and is resistant to reduction of meaning to measurement. (David & Sutton 2004, 197)

Descriptive analysis of the situation being observed which is also called narrative method was used as needed. The writer has begun by giving explanation on the setting and how things which are under the focus of the study went. The next step was breaking down core responses in to units. It was relatively easier to work with the responses from the systematic observation as they have already been categorized. Nevertheless, unitizing has been used with both types of responses that were collected from the two phase observation. This was followed by coding. At the initial stage, the coding term is not crucial as it will go through continuous refinement.

As Denscombe (2003) puts it clearly, it is always important to reflect and identify once the raw data is put in a reasonably differentiated manner. Identification refers to commenting and reflecting on the raw data that will help the researcher to guide if any new way of thinking happened. Accordingly, identification has been the last part of the analyzing process. This is the main part of the reflections taken as it is at this stage that one attempts to identify 'patterns and processes', 'commonalities and differences'. At last, generalizations were made that could help to explain the themes and relationships identified.

5. Findings

This section presents the findings from both research methods that have been implemented in I.C.E.C play 'n' learn kindergarten on March, 2012. The findings are presented in two sections as the observations were also done in two sections. The systematic observation has focused on certain specific areas which made the analysis relatively easier that the coding has been partially done already on the table of the observation.

The main focus areas of the first observation were: roles that were taken by children during their play. In this area the interest was to see how the children take roles. Do they choose themselves or other children choose for them? If they were assigned by others, how did they respond? Did they accept or not? Any arguments happened between children, how they solved or calmed them down? These areas were chosen as focus areas because it is during plays that social rules are reflected and how far the children manage to keep their play go peacefully.

5.1 Play

All the children like playing peacefully and having fun. However, there exists undeniable difference of perception in how to play peacefully. Each child without any difference that comes to the kindergarten gets undressed and washes hands and then joins the other children in their plays. Most of them have especial preferences of plays that they often choose to play.

The other interesting aspect within play is that most of the time the children manage to engage themselves in to role plays. It can be home corner, café, geomags, Lego, pet shop or other floor toys; the children turn it into role play and create their own world within it.

I am the teacher's helper ya? Don't talk! Shhhhhhhhhhh we cannot watch the movie if you talk.

This was a role taken by a girl while all the children were watching movie. Supposedly, watching movie is not their play time that they have to be quite and follow the story. This girl assigned herself with this role and started monitoring the other children. Her friends did not accept this role that they came and reported to the teacher. The teacher intervened to solve the problem. The girl said that she does not like it when they whisper. This girl was facing a problem as she wanted to follow the movie but the other children were talking and disturbing her. She thought that the only way she can solve this problem is when she becomes teacher's helper (the teacher chooses everyday one child to be helper and make sure everything is tidy and in order). She assumed that role for herself and started acting though it was not successful.

While playing, the children reach their proximal zone of development compared to their actions in other times. This is especially true for children who are shy and do not talk much either to children or adults.

I am the small baby. Mommy mommy I am hungry, no I don't want that (pushing by hand away), and mommy I want to sleep (following the other girl all the way around).

A smile was put on this girl's face the whole time and she was speaking loud and clear. It is not the case with her usually. This specific girl is very shy that she hardly speaks with anyone even with her friends. Her teacher has had meeting with her parents to discuss the issue. The girl was shy to the extent that if she is pushed to talk she can burst out in to tears. However, at this play time she seemed to be forgetting all about being shy and talking with confidence and having fun.

5.1.1 Play roles

In all the observations that the author of this thesis had, it was easy to notice that the children take different roles. The variation is so big that it is long list to mention each of them. The major groups fall in to animals, family members and different professions. Usually

when they play with animals they take different characters of animals. At other times they just decide to take human characters while they are playing with animals. They also enjoy being teachers and doctors. When the children take one of these roles, they start acting in accordance with the behavior that is expected. There are always responsibilities that are attached with them and the children try their best to fulfill those. A mother needs to feed her child or wake the children up on time. Arguments happen when one or few of them fail to act according to the roles they have taken. These play times help to understand the developmental level of the children; both the actual development and the zone of proximal development. They sometimes adapt the behavior and responsibility that is higher than their actual development in order to meet the demands of the play. Some of the children who hardly talk in formal settings like circle time or with adults, keep long conversations when they are engaged in role plays. This shows that those children are in a zone where they have already collected good range of vocabulary but not still yet confident to use it in formal settings or with adults. Such developments can clearly be seen in role plays.

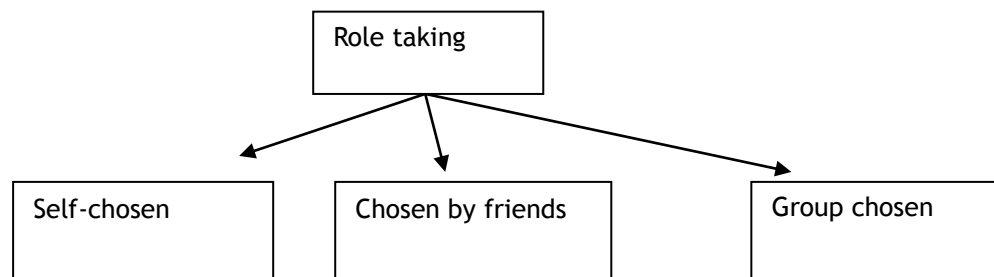


Fig.2 Role taking

5.1.2 Play rules

Children keep their own rules to play peacefully. Some of the rules are general that everyone is expected to know about it while the others are specific sometimes reinforced only for the purpose of certain play time. Play rules in general can be seen from two different angles.

The first one is rule that children make in order to make their play go in the direction they want it to flow. Through all the observations, the author of this thesis has noticed that such rules are the center of role play. The children choose their plays and settings from their imagination that sometimes it is completely different from their surroundings. Two girls who came to play with the cars on a carpet decided that the carpet was parking lot of a school and they are teachers. They continue playing and chatting accordingly. In reality there was nothing that could lead them to create this play condition for themselves. However, they

came up with it. Such actions support and prove the fact that rules are the core elements of children play.

Moreover, the rules they make and the commitment they show to their own rules are key indicators for their developmental levels. The second rule is the one that they make in order to keep the play peaceful and interesting. The author had observed repeatedly that the children give attention to what roles they take or their friends take in order to make the play interesting. Throughout the observation process, it has been noticed that the children take roles in three ways. One they choose for themselves or other friends assign it for them or thirdly they choose as a group. However, they sometimes argue on the choices and come up with their own solutions. After taking different roles, the author was able to see that there were different responses. When a child takes the role by own choice, usually the play continues normal. At times friends refuse to accept for different reasons. The common reasons are: if there are already enough number of children playing in the area, if the child did not ask to join in cases where the play has been started earlier than the time that the child came to join, if one or few of the children playing there like to rule and boss around their friends. Responses from the role takers are also different and sometimes it is not easy to state the reason behind such responses. Some children play alongside and wait for invitation to join while others go and tell the teachers to interfere. There are also other occasions where the children sat alone with sad face or went somewhere else to play. When role is assigned to a child by other friends, some children just accept it and continue playing while others refuse and show different actions to reveal their dissatisfaction. The author has found that all the tiny pieces that go around during such play times have something to say about the developmental level of the children. What makes it especial is that it indicates not only the actual level but also the potentially achievable as play is already putting them in their zone of proximal development by supplying them with new challenges.

The children also apply rules to judge behaviors as wrong and right and keep the play go. It was interesting to follow conversation that was held between two girls.

G1 I want to be a dog

G2 No you have to be a cat

G1 No, I want to be a dog

G2 because you have a cat at home and you don't have a dog

This conversation shows that when the children are independent and take the responsibility of their play, they use their reasoning capacity more than ever in order to safeguard their play. Besides, this is a good example to explain why they sometimes insist that something should be in such way or cannot be in the other. They also try to avoid bad words and actions

in order to keep the play happy and proper. The responsibility they take is much bigger in plays than in any other formal activities.

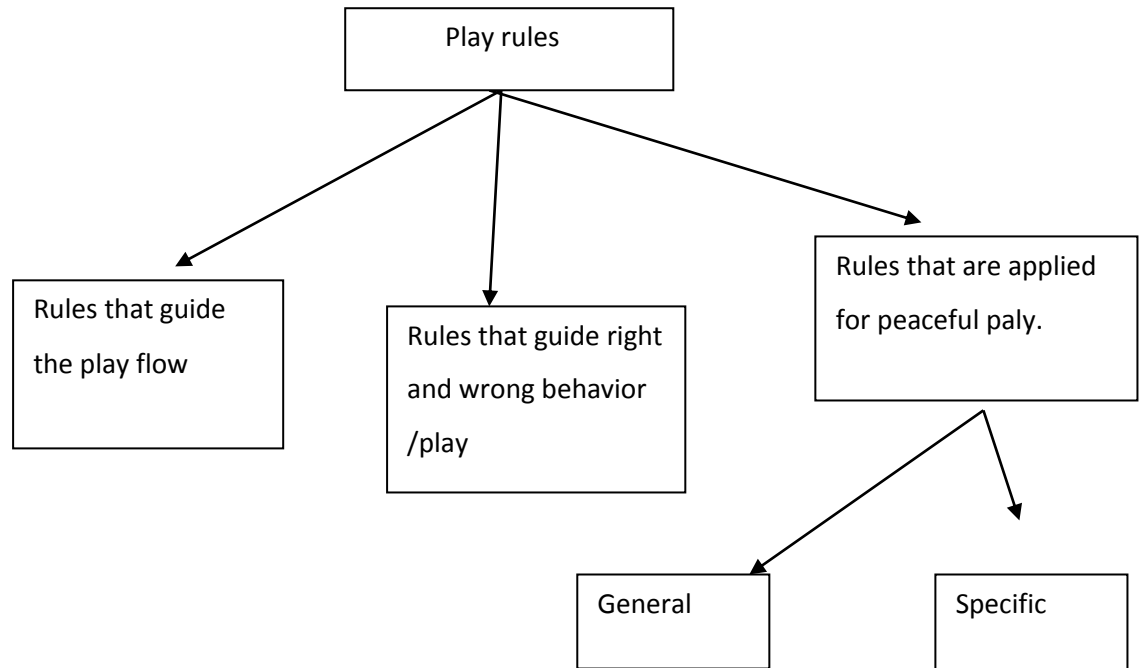


Fig. 3 playing rules

5.1.3 Conflict resolutions during play

Once arguments or conflicts over interests happen, children try to look for solutions in different ways. Of these the first one is going away. Here is one incident: the new geomag has been the center of attention by almost all of the children. A group of three children had already started building some shape, a boy came to join and they told him that they are already full in number. He left that area, went somewhere else and sat down with head down. He explained what happened when he was later asked by a teacher who has noticed his condition.

Other conflict resolution method used by the children is open verbal negotiation. They try to describe their thoughts and reasons verbally. It is quite broad to classify as anything can be included in their negotiation. Here is below a conversation between two girls who were playing at a carpet with cars.

G1: This my car parking place, I will park my car here.

G2: No, I will park my car here

G1: Nooo, I said first

G2: two cars can be parked, it doesn't matter

These girls have clearly managed to solve their problem before it went to any worse. At the same time the second girl has shown that she is salient character leader that compromise and persuade others in order to avoid quarrels

Some children prefer to keep quiet and pretend as if they have not noticed when other children do things that they do not like. Among the sample children, there was one girl who was teased by other girls. They were whispering and laughing at the same time staring at her. The girl was discomforted, trying to concentrate on her play but also looking at them frequently. This girl neither said anything to the girls to stop or went and report to the teacher. Her way of keeping down the potential quarrel was trying to ignore and keep quiet.

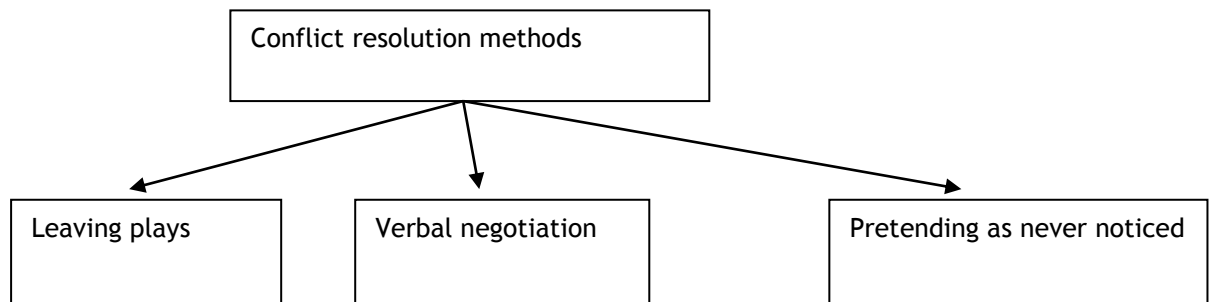


Fig.4 Conflict resolution

5.2 Reasoning behind conflict resolutions

On the second observation where participant observation method was employed, the children were observed when they were mainly having role play. The main reason for that was the fact that they keep longer conversations in that play comparatively which in turn allows participant observation to be carried out more efficiently. The main focus area under this second observation phase was giving emphasis to the conflict resolution methods they use and why they solve it that way. The observation was aimed to find out how the zone of proximal development can be used to evaluate their levels and help on planning based on their needs.

5.2.1 Grounds for different conflict resolutions

Not all children like to answer the question why. Actually it is not an easy question to answer for adults either. However, the focus of the second observation was to answer a question that starts with 'why'. The second observation did not have any controversy with the results of the first observation on the methods that the children use to solve their conflict. In addition, in the second phase, why they want to solve it that way has been the main focus. It was not always possible to do the second observation as the direct continuity of the first one. The children were not observed under exactly same circumstances as each day comes with its unique events.

There were mainly three reasons found for why children choose to solve their problems in some specific ways. The first and that was shared by most of them was that when they are disappointed they do not know what to do. They get upset, confused and sad at the same time. This mixed feeling leave them no space for clear thinking and best resolution. That is when most of them just keep quiet and stop playing or leave that play area. There were couples of occasions that the writer asked some children who just stopped playing. This was a conversation with one boy:

Wr. why are you not playing anymore?

B. Because..... (Calling name of a girl and pointing at her) took the toy from my hand.

Wr. what did you say to her?

B. Nothing (showing unhappy face)

Wr. You know that you have to always tell your friends when they do or say something that you do not like. If they do not stop you have to tell this to the teachers.

B. ok (nodding the head)

Wr. Why do not you go now and tell her that it was in your hand first and she cannot take it without asking you.

B. With hesitation went to the girl He came back with the toy and a happy smile on his face. At other time a girl was sitting alone at the corner away from the other children who were immersed in their plays.

Wr. what happened? Why are you here alone?

G. They do not want to play with me.

Wr. Did they tell you that?

G. No, but 1 says that she wants to play with 2(calling names of two girls)

Wr. May be that does not mean that they do not want to play with you. Why don't you go and tell them that you also want to play with them?

G. O.....k, (sounds unhappy to ask)

After going, she did not come back as she had already joined the play.

The second major reason for the children to solve their problems mainly through negotiation or verbal interaction is the desire not to lose their friends and at the same time their playing opportunities. The children negotiate in order not to lose their right. When they take actions like negotiation or reporting to the teacher, the children definitely know why they do it. They want to defend their rights. These include toys to play with or roles to take. It is common to hear them saying that they were the first so they should take that role or toy. Such negotiations usually take longer time and sometimes end up as a report to the teachers.

The third category was when children do not try to solve their conflicts by themselves at all and always go to tell the teachers right away. The children do not want to handle the problem mainly because they are afraid of being teased by their friends. In addition, some children are not used to talking with their friends on issues that might trigger quarrel so they prefer the teachers to take care of it rather than themselves.

Here is one incident of a girl reporting to the teacher that her friend told her that her sunglasses look funny. The teacher intervened and tried to calm the situation. The writer tried to talk with the girl.

Wr. why did not you tell them yourself that you are not happy when they say that?

G. It is only 1(name of one girl) who said that

Wr. so why did not you tell her?

G. because I did not want.

Wr. why?

G. because the others can hear

Wr. does it matter if they hear?

G. I don't want them to hear....

This girl obviously did not want to take care of it because she thought that the other children also will know about it and tease her so she wants the teacher to take care of it instead.

Why do they solve it that way?

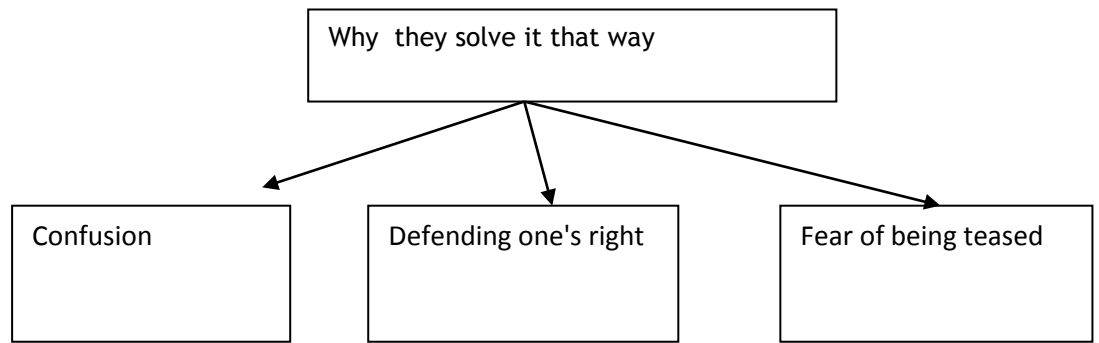


Fig 4 Problem solving

5.2.2 Missing skill

It is impossible not to add this under major findings that there is an obvious lack of self-defense among the children. In many occasions the children were using running away from the group or ignoring what is happening just because they were not sure about what to do. This is mainly because they do not have the confidence yet to face misunderstandings and disagreements. The fear of losing friends and playing alone abides them from developing their skills of problem solving in the right way.

Though teasing is taken as serious discipline issue, its shadow is visible in many aspects. One of these is that many of the children play unhappily in an environment that seems to be peaceful just because they do not want to try any of the resolution methods available. These children are in fear of being teased than anything else that they resist playing unhappy rather than putting themselves at risk of being teased.

During the observation, there was an incident of a boy trying to solve the conflict he had at the kindergarten from home. He has never mentioned either to the teachers or the other children playing with him that he does not like it when they always tell him to be the smallest child. However, his parents came to have a word with his teacher about it and told that he is very upset at home that he cannot choose what he wants to be. Based on this information, the writer had tried to keep conversation with the boy though it was not that successful. There is an obvious lack of communication between that particular boy and both the children and the teachers. In general if communication around every aspect is not well established then it can be cause for lack of conflict resolution method when it comes to the social skills of the children.

6. Ethics and reliability

6.1 Ethics

In this section it is presented that how ethics and reliability have been considered in order to make the thesis work trustworthy. In this regard, the primary factor has been professional ethics that was a driving force throughout the thesis process. This includes mainly confidentiality and power sharing. Qualitative research demands great care at all stages. This includes from the beginning that the choice of the topic is relevant and important. Afterwards, in each step unless great care is taken, qualitative research can present challenge. In qualitative research the main source of unethical consideration is when researchers start to consider their informants as objects and tries to get information out of them as readymade as they want it to be. The other ethical issue that is usually considered with qualitative research is to keep the balance between in-depth study and confidentiality. There is always a question of to what extent to reveal information gained so that confidentiality is not also trace passed. The third main consideration in this regard is consent. All researchers agree that consent is important and ethical in doing research. The question comes in those situations when consent can affect the reliability of the information that is going to be collected. A good example could be participant observation of different types. (David & Sutton 2004, 80-82)

Research process that is done with minors is extremely sensitive. The data collection has been done in a kindergarten where the writer normally works as an employee. That made the whole process extra sensitive and demanded so much care. The best solution was to keep transparency with everyone that is concerned in one way or the other. For this reason continuous discussions and clear information exchanges have been happening between the thesis writer and thesis tutor as well as the thesis writer and the work place. After the research has been approved to come in to application, letter of consent was sent to the parents of the children who were going to be informants. Considering this, after getting signed permission papers back, the writer of the thesis introduced to the children that there will be data collection happening among them. In this way power was shared among all fairly. In addition, confidentiality has been agreed with all the parties that were concerned with the data collection process. This was made realistic all the time by using numbering codes and non-usage of names of any child that was observed.

6.2 Reliability

According to Allen B& Bell E. (2003, 33 &76), reliability answers the question if the same outcome or conclusion could be drawn if the study is done again. It focuses mainly on the consistency of the measurement used to analyze the data. The most important factors to conclude whether a measure is reliable or not are internal reliability and external reliability. External reliability measures the degree by which the study can be replicated using a similar research theories adopted by the original researcher. Internal reliability-measures when members of the research team agreed on what they see and hear. (Bryman et al. 2003, 288)

The question of reliability has been very important throughout the data collection and analysis process. This is because mainly the writer carried out the research in a kindergarten where she also works. The risk of bias was at border line from both the researcher's and the informants' side. To avoid that once the children were informed that the writer has interest to know more about their plays and their conversations during play, no further pressure was put. That helped the children to easily forget the presence of an observer around them in addition to the fact that the person is not strange but that they know before. To answer the question of reliability that if same result comes out again with similar research theories, the writer suggests that if similar procedures are followed and the researcher takes reasonable time to make one self-familiar with the children, same result can be obtained.

7. Discussion

The thesis work has been revolving around the theory of the zone of proximal development which has gained coverage by different professionals quiet recently. In the beginning, the theory was targeted as useful in early childhood education work. However, there is always a need for research based explanation and proof before recommendation is given. In this regard, the overall thesis idea was finding out literature resources that reflect the core element of the theory about the social skill development of kindergarten aged children. A special focus and interest was employed for social rules among children. Based on that, primary data collection was used in order to see how the theory can be used to actually assess/evaluate the social skills development of the children.

The findings have shown that at the age of the target group which is between six and seven years, children develop their social skills in different directions. Social rules among children are part of their social lives that help them to lead peaceful play and friendship with other children. These developmental skills can get better insight when they are assessed under the ZPD theory approach. In turn, this clearer view can equip the teachers in kindergartens with

the knowledge of what areas to focus on while teaching the children and on which areas to support them more.

7.1 Challenge and rule making

Based on the findings, children come up with different rules to overcome different challenges. In this regard, Vygotsky considers rulemaking as one way of children's coping with a challenging situation. It has been found that even when children want to start a new play and are not sure if it is going to be fun or not, the first solution they come up with is designing rule for it so that it could be more meaningful and fun. In addition, children at play are usually at their zone of proximal development than their actual zone of achievement. (Birch, 1997:57)

The children at play are usually challenged from two directions. One is the challenge of demand to be creative consistently in order to keep their play interesting throughout the play time and the other one is to play with their play mates peacefully. Children tend to overcome all types of challenges through rule making and sticking to their rules. It has covered big part of the findings section that how they differently and widely come up with their own rules and enforce the general societal rules in order to play together as a group. The most interesting point regarding this is that most of them do not show those abilities in formal settings like circle time or story time or when they do activities that are given to them by teachers. That is why teachers have to be careful when they describe the level of their children as the zone of proximal development is not necessarily visible in formal settings. On the other hand, even if it is not visible on formal settings it determines how the following the teaching should be done, on what areas the kids need higher support and what plans should be made for the next lessons or activities.

Teachers can take these play times as good opportunities to observe their students from a different angle. For example, a child who is very shy may drop cup of juice on the way back from snack table and may not know what action to take to solve the problem that just happened. This incident can force the teacher to put the evaluation of the problem solving skills of the child as less developed. However, the teacher might happen to observe that same child during play in a different level of problem solving. Without the presence of adults that probably makes the child tend to be shy, the child might have potential of creating rules and enforcing them in order to control the flow of play and peaceful social life. According to Vygotsky, this is the zone of proximal development of the child which with the support of adults can be turned in to fully achieved and mastered skill. Teachers can use this opportunities to know the potential level of their children and turn it in to reality of fully

achieved one. To conclude, rules are inseparable from role play as the roles imitated from social life always come with the rules that are attached with them. (Cole et al. 1978, 95)

7.2 Imitation and responsibility

According to Vygotsky, it is in play that thought is detached from meaning and objects. At this stage action arises from ideas rather than things. (Cole and et al., 1978:96) Children are able to imitate actions that go beyond their actual levels of development. This capability has been clearly seen from the findings that how varied are the roles that children take during their plays and imitate perfectly. According to the theory of the zone of proximal development, this truth changes the whole doctrine of education that is based on the tested mental development level.

Children at play, especially children at role play, can be great interest for their teachers in order to evaluate or assess their social development level. To start the argument here, the child at play is already the child at one's zone of proximal development. In addition, when children try to imitate what adults normally do they step in to their zone of proximal development passing successfully what has been their maximum achievement and going to the next step. However, if the teachers completely ignore the levels that are visible during these times and stick to recording only the completely achieved levels, it can be great waste of time and less opportunity for the children. This is because in role plays the children show that they can take responsibilities higher than what they have actually achieved or discuss issues or solve problems that they might not do in formal settings. If evaluation includes teacher's observation of the children at their proximal level of development that opens a whole new chapter both for the current teaching and next step planning.

Besides, it is through imitation that children learn to be part of the society that they belong to. During role plays, the children take roles that are available around them through family, friends and media. Children can imitate roles of leaders or family members; they can be professionals and many others. That helps them to grow as a fully functional member of their society. In this regard, if teachers are also equipped with the knowledge and understanding of the zone of proximal development, they can use the opportunity to learn the world views from the perception of their children. This is because the children act what they think a teacher or a mother should act like in order to get their play look and sound real.

7.3 Base for activity planning

It was a pleasure for the author to find a literature review that has been made on project that took place in Danish elementary school. The aim of this project was to formulate a theory that considers comprehensive nature of children development in relation to social and cultural aspect. The project was based on Vygotsky's theory of the zone of proximal development as tool for evaluation of school children's development in relation with schooling. (Daniels, 1996: 171) This project share resemblance with the main idea of this thesis in a way that ZPD is aimed to be developed and used as tool for assessment/evaluation of the social development of children. According to Vygotsky the child enters the zone of proximal development through interaction with society and culture. This happens when the child interacts and tries to copy something that is over the development level achieved. A psychological development is a socially embedded occurrence. The child can solve certain problems alone while needs guidance from developed others. The distance between the two is the zone of proximal development for that child. Vygotsky pointed that if one wishes to design the right way of instruction, it is important to measure and know both levels of development. In this regard, kindergarten teachers should not only focus on the development level indicators that the children can show independently but also the achievements they can acquire through the help of adults. Through this they can better understand the level of their children which in turn can help them for the planning of the future. Besides, they can also expand their knowledge and understanding of their society through interactions with adults. This point is important that it can step education one mile ahead than where it is now. It can contribute greatly to avoiding boredom lessons that often happen when children are thought subject matters that they have already mastered in their lives. It used to be that once a child is tested and recorded at certain level of actual development, education then never go beyond that level. However, at play children clearly show their potential that they are going to catch up soon. This gives their teachers the tool to prepare the challenge that is motivating enough for those children. (Cole et al., 1978:88) If early childhood education teachers start to measure both levels of developments in children, then they can plan exactly what the children need in order to master what they have achieved already partially and enter their next zone of proximal level of development. This way of education can happen only when the zone of proximal development is formally and officially included in their curriculums as part of their evaluative tool of the development of their children.

7.4 Multiculturalism and evaluation

The zone of proximal development can also assist evaluation among multicultural children. A good example for this can be the 'Te Whariki' of New Zealand. This is an early childhood education curriculum that has been developed in New Zealand. The base for this curriculum

was mainly obtained from the socio-cultural theorists like Vygotsky and Rogoff. (Miller and Linda, 2011:149-153) Children come to know their world through own activities and communication with others. Children know their world better through interaction with peers, adults and nature. The other nature of Te Whariki which made it exemplary for this study is the fact that it is purely bi-cultural. Teachers' involvement as active part taker in the learning process of the children enhances their understanding of children with multicultural background. It is relatively easier to deal with difference when individual level of communication is established than limited communication as a group. This makes ZPD as a tool to evaluate children of today as our world is growing in to multiculturalism than any time in human history.

In the findings section, it has also been mentioned that some of the children lack explanation for their actions. Therefore, it is important for teachers to get closer to these children and assist them in their daily activities as this is the only way that the teachers can learn about the actions of these children. Here is the extra advantage of the zone of proximal development; not only the teachers learn about the actions of the children but also the children can step in to explaining their actions better through their adult interaction and communication.

7.5 Recommendation

It has been discussed in the above section how important it is to use the theory as an evaluation method in order to evaluate/assess the social development of children. It has been said only few about the use and applicability of the theory. The writer also found out that not so many thesis works has been done on the topic if not any at all. This shows that there is so much to be investigated and researched about the theory of the zone of proximal development and its use. It is vast and has different sides and views. It would be advantageous to the field of early childhood education if further studies around the concept and its relation to the early childhood education could be done. Therefore, it is the writer's recommendation that the topic continues to be in different projects that work around early childhood pedagogy developments and be further studied.

As this topic has begun as part of VKK Metro project, it is also recommended that the results can be used to support the project in achieving its goals. Among the main aims of the project in regard to early childhood education, evaluation, evaluation criteria and early intervention were main ones. This study can contribute useful idea on how to evaluate the social skills development of children as zone that is partially achieved which can be soon achieved through proper support and guidance. This is relatively new way of evaluation which has not been widely used. The project can develop the method in a way that suits the kindergartens

that are included in the project and develop its use in the formal routine working system. The projects other topic concerning early childhood education was participation of children in early childhood education. This topic has been covered in a thesis work that has been done by Social service degree program students from Metropolia University of Applied Sciences. It is recommended that the results from different thesis works of students from different schools can actually be joined together and changed in to action in order to bring the needed change.

The working life partner, I.C.E.C play'n'learn English kindergarten, could also benefit from the results of this thesis as a copy of the thesis has been handed to them. An evaluative sheet of paper that has similar way of describing and listing points for evaluation has been produced and attached as an appendix. This enables the Kindergarten to consider adding the theory zone of proximal development among its evaluation/assessment tools of the social development of children.

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Appendix 2

Letter of Permission

Dear parents,

As part of my thesis research for my studies, I would like to implement observation on the social skills development of some of the children in our school. The sample has been made by random sampling through which is the children are selected randomly. I am going to observe them when they play and write down all the significant points I notice. The results of observation will only be used for the academic purpose. No names will be mentioned in any of the observation sheets or anywhere else. The results will not be transferred to anyone else other than my academic advisors.

If you agree and will allow your child to be included in the sampling, please confirm with your signature at the space provided below:

I-----allow my child.....to be included on the sampling and if chosen in the observation process.

Thank you! Tigist Affine

Appendix 3

Social development - The zone of proximal development

No.	The child at play	Date	References
1	The child can make own choice in play		
2	The child speaks freely with good range of vocabulary even better than formal settings		
3	The child is able to imitate and take responsibilities attached with role plays		
4	The child make rules to overcome challenges		
5	The child reflects own culture and beliefs through play		
6	There is an identifiable difference between child's achieved development and partially achieved development		