UNIVERZITA KONŠTANTÍNA FILOZOFA V NITRE
PEDAGOGICKÁ FAKULTA

BAKALÁRSKA PRÁCA

2010 **Natália Šebestová**

UNIVERZITA KONŠTANTÍNA FILOZOFA V NITRE
PEDAGOGICKÁ FAKULTA

PIAGETOVE TEÓRIE A ICH UPLATŇOVANIE V PROCESE VÝUČBY

BAKALÁRSKA PRÁCA

Študijný program:	Učiteľstvo anglického jazyka a literatúry, (Učiteľské štúdium, bakalársky I. st., denná forma)
Pracovisko (katedra/ústav):	Katedra lingvodidaktiky a interkultúrnych štúdií
Vedúci diplomovej práce:	doc. PhDr. Stanislav Benčič, PhD.

Nitra 2010 **Natália Šebestová**

Abstrakt v štátnom jazyku

ŠEBESTOVÁ, Natália: Piagetove teórie a ich uplatňovanie v procese výučby [Bakalárska práca] Univerzita Konštantína Filozofa v Nitre. Pedagogická fakulta; KLIS – Katedra lingvodidaktiky a interkultúrnych štúdií.-Školiteľ: doc. PhDr. Stanislav Benčič, PhD. – Nitra: PF UKF, 2011, 48 s.

Táto práca objasňuje teórie Jeana Piageta s cieľom ich uplatnenia v procese výučby. V prvej kapitole sa analyzuje pojem kognitívny vývin a približuje sa pohľad naň z dvoch perspektív, pričom sa Piagetove teórie porovnávajú s názormi Vygotského, kde sa kladie dôraz na Piagetovu teóriu kognitívneho vývinu a jej jednotlivé štádiá. Druhá kapitola je venovaná jazykovému vývinu, kde sú porovnávané jednotlivé jeho teórie a vyzdvihuje sa význam stimulácie mozgu prostredníctvom hry ktorá je dôležitá pre jeho správny vývin. Tretia kapitola charakterizuje schopnosti učenia sa cudzieho jazyka u detí v školskom veku z ktorých vyplýva, že dieťa sa učí najefektívnejšie práve vtedy, keď je aktívne zapájané do procesu výučby. Posledná kapitola definuje Piagetovu teóriu hry a poskytuje čitateľovi príklady hier a aktivít ktoré sú vhodné pri výučbe Anglického jazyka na základných školách.

Kľúčové slová: Piaget, vývin, jazyk, dieťa, hra

Abstract in a Foreign Language

ŠEBESTOVÁ, Natália: Implementation of Piaget's theories in ELT [Bachelor's thesis] Constantive the Philosopher University in Nitra, Faculty of education; Department of language Pedagogy and Intercultural Studies. - Supervisor: doc. PhDr. Stanislav Benčič, PhD. – Nitra: PF UKF, 2011. 48 p.

This work illustrates Piaget's theories for purpose of their implementation in teaching process. First chapter analyses the term cognitive development and describes it from different points of view, where Piaget's theories are compared with those of Vygotsky's whereas the work insists on Piaget's theories of cognitive development with its stages. Second chapter is dedicated to language development and the comparison of its different theories. The work further emphasizes the importance of brain stimulation by playing, which is important for its development. Third chapter characterises children's abilities to learn English language which shows that children are able to learn the most effective when they are active participants in teaching process. The last chapter defines Piaget's cognitive theory of play and provides the reader with the examples of English language games and activities which are adequate in teaching English language on primary schools.

Key words: Piaget, development, language, child, game

Contents

Introduction

In the twentieth and thirtieth years of twenty century appeared many theories, opinions and ideas from different psychologists, educationists, and philosophists who dealt with cognitive development, children´s growth, their thinking processes and behaviour.

This work provides outline of the theories of one great personality who made the contribution to our understanding of children´s cognitive processes and development. Jean Piaget was one of the most influential psychologists of the 20th century, who was interested in biology, psychology and considers himself as a genetic epistemologist. In this work, Piaget´s theories are compared with those of Russian developmentarist Lev Vygotsky who believed that development of the child depends on circumstances and expectations which occur in the society and culture he or she is from and that child´s personal characteristics and skills evolve from the interaction with his or her parents or teachers and claimed that human being is affected by the social believes and cultural values.

Piaget observed children, their growth and thought processes. This work analyses his theory of cognitive development and illustrates his beliefs that growing-up child pass through several stages of development where each stage is new in quality and behaviour. Piaget's stages of cognitive development are: the sensorimotor stage, the pre-operational stage, the concrete operational stage and the formal operational stage.

The work further analyses child´s language development and compares different theories of language development such as Predeterminate/Innate theory, Behaviourist/Environmentalists theory, Normative theory, Cognitive-transactional and Interactionist theory, while insists on Piaget´s Constructivist´s theory of language development.

The work describes the development of children's language and speech, from the first crying through the first words to the moment when they begin to use their language in communication and conversation. The work analyses the brain development which has a great impact for the development of their language and explains why the stimulation of the brain is so important for this kind of development.

The work contains the characteristics of children's skills, characteristics and instincts which make them good and successful in learning foreign language. There is the information that children are able to interpret the meaning of the words without understanding, they can use their limited language very creatively and also learn more indirectly than directly. They have the ability to imagine things, to find and create fun and learn by playing games.

The aim of the work is to implement Piaget's theories in English language teaching. Piaget believed that children are little scientists and explorers who seek to understand the world around them and who are able to understand and remember new information the most when they are active participants in learning process. To understand for them means to touch the objects, to feel it and manipulate with it. Piaget also believes that the co-operation with their peers makes them successful in learning. These are the reasons why the work gives an attention to using games in English language because it makes them focused, relaxed and those are the best predisposition for learning English language.

The most frequented methods in the work are descriptive and comparative methods. There is the description of the terms cognitive development or developmental psychology. The work also describes the processes of language and brain development. There is the comparison of Piaget´s and Vygotsky´s theories of cognitive growth and theories about language development not only those that are in common but also the contradictions.

1 Cognitive theories from different perspectives

The word cognitive comes from Latin *cognoscere*, which means *to know* (Oakley, 2004). Taylor took the definition of the word ‘cognition‘ from Oxford English Dictionary which says that it is „the mental action or process of acquiring knowledge through experience and the senses“ (2005, 2). It means that it reffers to all of the mental activities which people carry on. According to Brain (2005) we can substitute the word cognitive for the term thinking, which covers memory, concentration, curiosity and understanding. Taylor agrees with Brain (2005) that terms thinking and cognition are interchangable and complements that „identifying the different processes that are involved in thinking about both different things and in different situations is one of the main aims of those studying cognition“ (2005, 2).

According to Oakley (2004) the study of how psychological processes and activities involved in thinking and knowing develop in children and young people are called - cognitive development. „As a child develops, their thinking changes and cognitive development is the study of these changes and developments“ (Oakley, 2004, 2). Taylor (2005) describes the development of the child and claims that newborn babies are born with the abilities to extract information and then to make representations of it. According to her child’s thinking develops, but while he or she is developing, his or her thinking development is not only about collecting information but „new incoming information is consistent with what learner already knows“ (Oakley,2005, 8). Cognitive development is the major area of developmental psychology. Birch (1997) defined developmental psychology as a discipline that describes psychological changes that occur between birth and old age. According to Slater developmental psychology „explain the changes that occur over time in thought, behaviour, reasoning and functioning of a person due to biological, individual and environmental influences“ (2003, 4). The main aim of developmental psychology is to explain and describe physical, social, emotional,intellectual and cognitive changes occures from birth to the adulthood (Oakley, 2004).

One of the major controversies in developmental psychology is, whether cognitive development is quantitative and continuous or qualitative and discontinuous. There were two different groups of people, trying to answer these questions. The first group

was made of theorists, who believed that human development is an additive process based on quantitative character that occurs without sudden changes.

They claim, that children grow gradually and continuously at a steady and uniform speed and that their developmental changes are basically quantitative in nature. Shaffer desribes this quantitative change as „an incremental change in degree without sudden transformation“ (2009, 69). This view of human development is typical for people in Eastern cultures, who claim that children are so diffrent from adults that they can not judge them on the same personality dimensions (Shaffer,2009).

This theory can be contrasted with discontinuous theory which describes human development as a series of abrupt changes, where human being goes through stages, where each stage he or she achieve is new in quality, psychological organization and brings new models of behaviour (Shaffer, 2009). Discontinuous theory of human development is based on qualitative changes which make individual different than he or she was before. Shaffer also desribes qualitative change in communication skills as „the transformation of a prelinguistic infant into a language user“ (2009, 69). People in north Europe and North American agree with this theory of personal development because they „search for the seeds of adult personality in babies‘ temperaments“ (Shaffer, 2009, 70).

1.1 Vygotsky’s sociocultural theory

There were two key psychologists who made theories about discontinuous theory of cognitive development – Piaget and Vygotsky. Before describing Jean Piaget’s theory of cognitive development, the work deals with the theory of Russian developmentarist Lev Vygotsky.

Lev Vygotsky (1896 - 1934) was an active scholar in the 1920s and 1930s- the time when Piaget was formulating his theory. He died in the age of 38, what made his work unfinished. Nevertheless, he left some discoveries and theories of cognitive development which make the better understanding of children’s minds. According to Shaffer (2008), Vygotsky was the first, who claimed that intellectual development of the child is tied to his culture. He insisted that „human development occurs in a particular socicultural context that influences the form that it takes and many of a child’s most noteworthy personal characteristics and cogitive skills evolve from social

interactions its parents, teachers and other more competent associates“ (Shaffer, 2008, 90). Zastrow (2009) described main principles of Vygotsky’s theories. He believed that children’s development depends on circumstances and expectation of the society and culture they grow up and that this development is a part of their interaction in group activities. Growing up children are exposed to different situation and changes which they respond. Zastrow (2009) insists that these children learn from activities and performances of people around them and develope by observing them. According to him, developing children have to be in interaction with other because they learn cultural values just from them and need to use language to process what they saw, heard or experienced.

According to Shaffer (2008) Vygotsky believed that infants are born with a few elementary mental functions such as attention, sensation, perception and memory which are transformed by the society into new and more sophisticated mental processes – higher mental functions, for example taking memory. “Young children’s early memorial capabilities are limited by biological constraints to the images and impressions they can produce. However, each culture provides its children tools of intellectual adaptation that permit them to use their basic mental functions more adaptively“(Shaffer, 2008, 90). According to Sigelman (2008) culture provides its members not only tools of thought but also tools like pen, art or media.

Vygotsky insisted that human cognition is always sociocultural because it is affected by social believes and cultural values and because these values vary dramatically from culture to culture he claimed that „neither the course nor the content of intellectual growth was as universal as Piaget had assumed“(Shaffer, 2008, 91).

According to Shaffer (2009) Piaget and Vygotsky both agreed, that children are scientists, curious explorers who like to learn, discover new principles and explore the world around them. Whereas Vygotsky was more interested in importance of social contributions to personal growth, Piaget emphasised the self-initiated discovery.

According to Siegelman (2008) Vygotsky disagreed with Piaget’s universal stages of cognitive development. He describes that Piaget saw the child as an independent explorer whereas Vygotsky as social being who develops because of interaction with other knowledgeable member of its culture. There is also comparison of Piaget and Vygotsky according to Shaffer who claims that „unlike Piaget, who stressed universal

sequences of cognitive growth, which were said to promote universal stages of social-personality development, Vygotsky's theory leads us to expect wide variations across cultures in the course of development-variations that reflect differences in children's cultural learning experiences" (2008, 92).

1.2 Piaget's theory of cognitive development

Jean Piaget (1896 - 1980) was a philosopher, biologist, educionalist, psychologist and one of the most influential theorists in the field of cognitive development. (Oakley, 2004). Shaffer (2009) describes Piaget more detailed. He claims that he was a Swiss scholar, who started to study intellectual development in the 1920's. As a child, he was interested in zoology, at the age of 10 he published his first scientific article about the rare albino sparrow. When he grew old, he blended his interest in zoology with philosophy and devoted his life to epistemology - „the study of how humans acquire knowledge and use it to adapt to their environment (Sigelman, 2008, 45). Because of this new interest, Piaget moved to Paris and started to work at the Alfred Binet laboratories on the first standardized IQ test which „estimated individuals' intelligence based on the number and types of questions they answer correctly" (Sigelman, 2008, 45). When Piaget started to test children's intelligence, he noticed that he was more interested in children's wrong answers and found out that the same-old children produced the same kinds of wrong answers (Sigelman, 2008).

According to Shaffer (2009) Piaget realized that older children are not more intelligent that the smaller ones, they just have different thought processes. Siegelman (2008) agrees and complements that these children think in a qualitatively different way. Because of this discovery, Piaget built up his own laboratory where he was diagramming the development of intellectual growth – how children progress from one stage of thinking to another (Shaffer, 2009). According to Oakley (2004) Jean Piaget was the first, who noted that children were not just miniature of adults, but in fact they were different in the ways in which they thought about and interpreted the world.

Sigelman (2008) described Jean Piaget's definition of intelligence and claims that intelligence is the process that helps an organism adapt to its environment. By adapting he means that „the organism is able to cope with the demands of its immediate situation"(Shaffer, 2009, 54). Sigelman (2008) denied the theories which say that child

is born with some innate ideas or that he or she is filled with information by adults. Piaget's theory is called constructivism - child is an active constructivist who creates his own ideas about the world that are based on his own experiences (Sigelman, 2008). He believed, that children are active and curious explorers who watch the world and make experiments on the objects.

It was mentioned earlier that cognitive development means more than adding new ideas to an existing store of information. Jean Piaget was the first who believed that the thinking changes because people always strive to make sense of the world. Piaget identified four factors that influence thinking changes. These factors are biological maturation, activity, social experiences and equilibration (Woolfolk, 2008).

Woolfolk believes that "one of the most important influences on the way we make sense of the world is maturation, the unfolding of the biological changes that are genetically programmed" (2008, 38). According to her, parents and teachers have an impact on this aspect of cognitive development. Activity is defined by Woolfolk as "the increasing ability to act on the environment and learn from it" (2008, 38). She means that if child is curious, can explore, observe and discover his or her thinking processes change. Social transmission is another factor which influences cognitive development. "Without social transmission, we would need to reinvent all the knowledge already offered by our culture. The amount people can learn from social transmission varies according to their stage of cognitive development" (Woolfork, 38, 2008)

1.2.1 The principles of Piaget's theory

Piaget believed that child is a constructivist, whose understanding of the world is based on his own experiences and claimed that this child is able of this construction because of two intellectual functions – organization and adaptation (Shaffer, 2009). According to Shaffer (2009) organization is an inborn and automatic process. Woolfolk (2008) believes that people tend to organise their thinking processes into psychological structures which are used for understanding and interacting with the world. These structures than become more sophisticated and more effective. For example, infants are able to look at some object and also to grasp it. However, it is impossible for them to look and grasp that object at the same time. But as they develop, these two behavioural structures become more coordinated (Woolfolk, 2008).

Piaget named these structures as schemes and defined them as an "organized systems of actions or though that allow us to mentally represent or think about the objects and events in our world" (Woolfork, 2008, 39). Oakley (2004) defines schema as a cognitive representation of activities or things. According to Brain (2005) it is a plan or representation in children's brain about something it experiences and also a mental structure that gives a model of what happens when we do something. Another definition of scheme is by Shaffer who claims that it is as an "organized pattern of thought or action that a child constructs to make sense of some aspect of his or her experience"(2009, 54). Shaffer (2008) describes three types of schemes – behavioural, symbolic and operational. Behavioural schemes are simple motor habits like grasping, reaching and lifting that are formed in infancy and permit children to play with their toys or master their environments. Symbolic schemes are visual images, which occurs when children are able to represent experiences mentally. After entering the school, children's schemes become operational – they occur in their heads as an internal mental activities which makes them to think about problems in everyday life (Shaffer, 2008).

The main goal of organization is to support adaptation. He defines it as the process of adapting to the demands of the environment that occurs through two complementary activities – assimilation and accommodation (Shaffer, 2008).

Assimilation is defined by Brain (2005) as the process of infant's building of schema from its previous experiences. Coon (2008) believes that assimilation refers to using child's existing mental patterns in new situations and gives us the example: „Let's say that a plastic hammer is the favourite toy of a boy named Benjamin. Benjamin holds the hammer properly and loves to pound on blocks with it. For his birthday, Benjamin gets an oversized toy wrench. If he uses the wrench for pounding, it has been assimilated to an existing knowledge structure"(2008, 97). According to Woolfolk, assimilation "involves trying to understand something new by fitting it into what we already know" (2008, 39). She gave as the example of a child, who calls fox a doggy when it is seen for the first time. When this child will learn that the name of the animal is fox, he or she will match this new information into an existing scheme for identifying animals.

Accommodation is the term of changing the schema into the new information (Brain, 2005). Nevid defines accommodation as „the process of altering existing schemas or creating new ones to deal with objects or experiences that don't fit readily into existing

schemas“(2007, 369). Woolfolk insists that”if data cannot be made to fit any existing schemes, then more appropriate structures must be developed. We adjust our thinking to fit the new information, instead of adjusting the information to fit our thinking” (2008, 39).

Shaffer (2009) insists that we all try to solve our problems or understand our new experiences while using assimilation, but we realize that our schemes are limited so we need to remake them through accommodation and organize them to fit better with the reality. Coon agrees with Shaffer and claims that „new situations are assimilated to existing ideas and new ideas are created to accommodate new experiences“(2008, 97)

Piaget believed that our thinking couldn't change without process of equilibration. He described it as “the act of searching for a balance” (40, 2008). Woolfolk described how this process of equilibration works: “if we apply a particular scheme to an event or situation and the scheme works, then equilibrium exist. If the scheme does not produce a satisfying result, then disequilibrium exist, and we become uncomfortable” (2008, 40). Woolfolk (2008) believes that this is the reason why people use assimilation and accommodation and why their thinking change.

1.2.2 The stages of cognitive development

Piaget become most famous for his theory that growing up child pass through several stages of thinking, where each stage is new and different. Piaget claimed that these stages form an invariant developmental sequence which means that “all children progress through the stages in exactly the order in which they are listed“ (Shaffer, 2009, 54). According to Woolfolk, „individuals may go through long periods of transition between stages and that a person may show characteristics of one stage in one situation, but characteristics of a higher or lower stage in other situation“ (2008, 41). Piaget's theories of cognitive development are:

-The sensorimotor stage (birth to age 2)

-The preoperational stage (ages 2 to 7)

-The concrete-operational stage (ages 7 to 11 or 12)

-The formal operational stage (ages 11-12 and beyond)

The sensorimotor stage (0-2)

The sensorimotor stage covers the period of human life from birth to approximately 2 years, which developmentarists refer to as infancy (Shaffer,2009). According to Sutherland (1992) it is the period before baby say its first word. Infant's dominant cognitive strucures are behavioral schemes which develops when infant is able to „coordinate his sensory input and motor responses in order to act on and get on to know the environment" (Shaffer, 2009, 54). Sutherland complements that dominant activity in this period is perception which „is oriented towards action and baby's mental world is geared towards doing" (1992, 8).

Shaffer (2009) believes that children during this stage develop from reflexive creatures into human beings, who are able to solve the problems and who have already learned about themselves, about events and objects that uccur in their everyday life. According to him the progress of the infants is so dramatic, that Piaget divided the sensorimotor stage into six substages:

1. Reflex activity (0-1 month): Sutherland named this stage as the stage of reflexes and denied Piaget's opinion which claim that this is „the stage of mere mechanical response to outside stimuli" (1992, 9). He believed that baby has many unravelling capabilities. According to Shaffer (2009) Piaget believed that neonates are born with a few basic reflexes (grasping,sucking) which they use to satisfy their biological needs, but after few months they are able to assimilate new objects into this reflexive schemes and also accommodate his reflexes to these objects. Sutherland agrees with Shaffer (2009) and complements that babies in this stage starts to imitate adults' sounds and gestures and claims that „as a result of this and other research, the onset of intelligent behaviour has been successively moved back to perhaps a few hours after birth" (1992 , 9).
2. Primary circular reactions (1-4 months): Infant in the stage of primary reactions is able to perform some form of intelligent activity (Sutherland, 1992). Shaffer (2009) claims that this baby finds out that he or she can produce the responses which are called primary circular reactions, because they are centered on infant's own body. Sutherland insists that „circular reactions involve the repetition of an action that produces pleasant stimulation" (1992, 9). According to Shaffer (2009) infant in this stage starts to repeat interesting acts that are centered on his own body and behaviour that is mimicked by a companion. Shaffer (2009) also

insists that if there is some object in his propinquity which disappered, infant starts to looks intently. Sutherland (1992) believes that the dominant mechanism at the stage of primary reaction is assimilation and that circular reactions are the example of it.

3. Secondary circular reactions (4-8 months): After another four months infant enters the stage of secondary circular reactions where he or she is able to recognize that external objects are separate from their bodies (Shaffer, 2009). According to Sutherland (1992) baby in the stage of primary circular reactions repeat the action for its own pleasure whereas now it does it because of achiving the goals. Shaffer (2009) claims that infant finds out that he can make the responses on the external objects (making a rubber duck quack after sqeezing it) which are called secondary circular reactions. According to Sutherland „a secondary circular reaction represents a modification of a circular reaction in order to obtain a desired effect"(1992, 10). Infant in this stage keeps repeating interesting acts that are directed toward external objects and starts to seach for the objects he is missing (Shaffer, 2009).
4. Coordination of secondary schemes (8-12 months): In this stage of the coordination of secondaty circular reactions appears the first evidence of intentionality - infants start to solve simple problems by combining actions and are able to imitate responses after gradually accommodating a crude first attempt at imitation (Shaffer, 2009). According to Shaffer (2009) there is a flashing of notion of object performance - infant starts to search for and finds the hidden objects that has not been visibly displaces. Sutherland (1992) agrees with Shaffer (2009) that baby in this stage is able to combine two activities simultaneously but insists that baby is not able to search out or find the object that is hidden.
5. Tertiary circular reactions (12-18 months): Shaffer (2009) claims that infant in the stage of tertiary circular reactions starts to experiment with objects and tries to invent new methods of solving problems. Shaffer (2009) believes that these schemes of trial and error exploratory schemes are called tertiary circular reactions. According to Sutherland baby is now able to search out and find the hidden favourite toy and is able to understand that some object exist even if it

can be seen, because of making the mental pictures of this hidden object. This is the reason why is this stage „the beginning of mental representation, a key idea in the Piagetian theory. It is also termed the achievement of object constancy" (Sutherland,1992,13).

6. Invention of new means through mental combinations (18-24 months): Shaffer (2009) defined this stage as the period of the first evidence of child's using insight. According to him, infant is able to solve the problems at an internal symbolic level, immitate complex behavioral sequences and searches for and finds objects that have been hidden through invisible displacements.

The preoperational stage (approximately 2 to 7 years)

Piaget named this period preoperational, because he believed that children in this stage are not able to acquire internal mental activities (cognitive addition, subtraction) which make them to think logically (Shaffer, 2009). Woolfolk claims that „children need what Piaget called operations, or actions that are carried out and reversed mentally rather than psychically" (2008, 43). According to Shaffer (2009) the typical feature of this period is that children become skilful in constructing mental symbols - words and images. Woolfolk agrees with Shaffer and claims that „the ability to form and use symbols-words, gestures, signs, images and so on - is thus a major accomplishment of the preoperational period and moves children closer to mastering the mental operations of the next stage. This ability to work with symbols, such as using the word ‚horse' or a picture of a horse or even pretending to ride a horse to represent real horse that is not actually present, is called the semiotic function" (2008, 41). Coon agrees that children can make mental images but insists that they are not yet able to „transform those images or ideas in their minds" (2008,97). He complements that children in this stage start to use their language and think symbolically, concrete and intuitive.

Toddlers in this age also pretend to be people they are not. Piaget considered this pretend play as very impotant for social, emotional and cultural development. This play helps children to adopt into their future social roles or practice the basic social routines (Shaffer, 2009).

According to Piaget, preoperation stage is not only about children's symbolism or pretend play. Shaffer claims that child in this period of life is quite egocentric and describes egocentrism as „a tendency to view the world from one's own perspective

while failing to recognize that others may have different points of view“ (2009, 59). These 3 and 4 years old children do not have just problems with perceptual perspective taking- they conclude what others see or hear, but also with conceptual perspective taking that is correct concluding other’s feeling or thinking (Shaffer, 2009).

At the age from 4 to 7, egocentrism decrease and children are much more concerned at classifying objects on the basis of size, shape and color (Shaffer, 2009). According to Piaget toddlers are unable to conserve, they can not understand that certain properties of substance are the same even if they appear in some other way that is the reason why they are not operational yet (Shaffer,2009).

The concrete-operational stage (approximately 7 to 11 years)

Woolfolk describes the basic features of this stage - „the recognition of the logical stability of the physical world, the realisation that elements can be changed or tranformed and still conserve many of their original characteristics, and the understanding that these changes can be reversed“ (2008, 44).

Piaget believed, that children become operational as soon as they get two cognitive operations,first one is reversibility-„the ability to mentally undo, or reverse and action“ (Shaffer, 2009, 60). Another cognitive operation is compensation, which allows children to focus on another aspects of a problem at the same level. Children apply these new skills when they talk about objects or events they saw, heard or experienced (Shaffer, 2009).

Woolfolk agrees with Shaffer and adds another aspect of reasoning called identity. „With a complete mastery of identity, the learner knows that if nothing is added or taken away, the material remains the same“ (2008, 44). According to Nevid the most important cognitive operation of this stage is conservation - „the ability to recognize that the amount of quantity of a substance does not change if its outward appearance is changed, so long as nothing is either added to it or subtracted from it (2007, 372). Woolfolk points out another cognitive operation called classification. „Cassification depends on a learner’s abilities to focus on a single characteristic of objects in a set and group the objects according to that characteristic. More advanced classification at this stage involves recognising that one class fits into another. A city can be in a particular county or area and also in a particular country“ (2008, 44).

Shaffer complements that typical feature of the concrete operator is his understanding of relations, relational logic and „the ability to mentally arrange items along a quantifiable dimension such as heigh and weigh“ which is called seriation (2009, 61). Woolfolk (2008) describes the term seriation as „the process of making an orderly arrangement from large to small or vice versa. This understanding of sequential relationship permits a learner to construct a logical series in which A<B<C (A is less than B is less than C), and so on“ (2008, 45). According to Shaffer, there is also concept of transitivity - „the ability to accurately infer the relations among elements in a serial order“ (2009, 61).

Children in this stage show that they can think logically about real objects that are physically present not about abstract ideas or any hypotetical propositions (Shaffer, 2009). Coon (2008) agrees with Shaffer (2009) and explains this use of logic on the example that these children stop believe in Santa Clause. Nevid (2007) complements that child in the concrete-operational stage become to be much less egocentric than he or she was before.

The formal-operational stage (age 11-12 and beyond)

This stage is the last of Piaget's intellectual stages. Nevid (2007) calls this stage – the stage of full cognitive maturity. According to him in Western societies this stage tends to begin at about age 11 or later, however he believes that some adults never achieve it.

According to Woolfolk (2008) typical feature of a formal thinker is his ability of hypothetico-deductive reasoning. She believes that this child can consider a hypothetical situation and is able to reason deductively. This stage also include inductive reasoning. Woolfolk claims that „formal-operational thinker can form hypotheses, set up mental experiments to test them, and isolate or control variables in order to complete a valid test of the hypotheses“ (2008, 47). Shaffer believes that this child also „perform mental actions on ideas and propositions, reason logically about hypothetical processes and events that may have no basis in reality“ (2009, 61).

Adolescent egocentrism is another typical feature of the child in formal-operational stage. Adolescents realise that other people may have different ideas and attitudes however they believe that everybody watch them and analyse them. This feeling is on its highest peak at the age of 15.

Woolfolk (2008) claims that all these formal operations have an great impact for adolescents and their future lives. They love sci-fi because of their thinking about unreal events. They are able to deduce the set of possibilities and imagine the perfect worlds for them. That is why they are so interested in politics and society (Woolfolk, 2008). Coon (2008) believes that during this stage the full adult intellectual ability is achieved.

Nevid (2007) describes Jean Piaget as a great personality who left us a rich heritage. According to him, he was the first who came with the concepts such as schemas, assimilation and accomodation, conservation, reversibility and egocentricity. Thanks to Piaget, people can look at the child as at the scientist and explorer who seek to understand the world around him. He explained that children have the cognitive processes which change during their development. Neverthless, Shaffer (2009) claims that there are many researchers who challange his hypothesis that development occurs in stages and critises his theory of children's cognitive capabilities because he ignores influences of culture and society. According to Nevid (2008) there are some theorists who criticize Piaget's theories because they believe that child develops through more continuous proccesses. Woolfolk agrees with Nevid (2008) and complements that „rather than appearing all at once, object permanence may progress gradually as children's memories develop. The longer you make the infants wait before searching-the longer you make them remember the object - the older they have to be succeed" (2008, 51). Woolfolk also points out one problem the teorists have with Piaget's theory-the lack of consistency. „Children can conserve number (the number of blocks does not change when they are rearranged) a year or two before they can conserve weight (a ball of clay does not change when you flatten it). Why can't they use conservation consistently in every situation?" (2008, 51). Nevertheless, Piaget made a great contributions to our understanding of cognitive development and believes that his theories are still applied in the field of education.

2 Language development

Before describing the process of language development the work deals with the term language. Hoff defines language as „the systematic and conventional use of sounds (or signs or written symbols) for the purpose of communication or self – expression“(2005, 4). According to Bochner the word language is closely related to terms communication and speech. She defines communication as „the process whereby information, ideas and messages are transmitted between people“(2003, 3). Bochner (2003) insists that communication can exist without the words and its main aim is to transfer message from one person to another. The term language is defined as the form of communication. According to Bochner language „involves an organized system of signs or symbols that are used by a group of people to share meaning“(2003, 3) while this system of signs and symbols is described as speech, text, hand movements or Braille alphabet.

2.1. Theories of language development

Theories of language development „differ in the relative importance that they give to maturation and innate factors, on the one hand, and to experience and learning, on the other“ (Oates, 2004, 14).

Predetermined/Innate theory

This theory has a native aspect. Theorists who support this position believe that all babies have some mental ability that enables them to improve any language which sounds in the environment they are from. The most known representative of this theory was linguistic researcher – Chomsky. He believed that every human being has individual language acquisition devices (LAD) which carry sets of language system rules (grammar) which is common to all languages we know. “As the child lives within a favourable family climate, his perceptions spark a natural and unconscious device and the child learns the mother tongue” (Machado, 2009, 12). Chomsky discovered that babies from 2 to 3 years of age are able to pronounce complicated and understandable sentences they have heard for the first time and insists that children carry “the set of internal rules that allows them to transform the sequences of sounds, they hear into sequences of ideas – a remarkable thinking skill” (Machado, 2009, 12).

Behaviorist/Environmentalist (or Stimulus-Response) Theory

Oakley points out another theory of language development called behaviourism. B.F. Skinner, representative of this theory, believed that development is the result of the language and that baby is „a blank slate waiting to be written on by their environment"(2004, 14). According to Machado (2009) the reactions of the people influence the child's language development. Bochner (2003) claims that children are able to acquire language because they observe the world around them and complements that the first acquisition of the language occurs during the feeding, because mother of the child is vocalizing and her baby starts to imitate her. This makes child to imitate further adults speech. He believes that these techniques such as imitation, shaping or reinforcement may help to teach children with language difficulties.

Maturational (Normative) theory

This theory was accepted in 1960s when linguists like A. Gesell believed that children are products of genetic inheritance and that influence of the environment is not so important. They claimed that children move from one predictable stage to another. "Using this theory as a basis for planning instruction for young children includes (1) identifying predicable stages of growth in language abilities and (2) offering appropriate readiness activities to aid children's graduation to the next higher level" (Machado, 2009, 12).

Cognitive-transactional and interactionist theory

According to Hoff (2005), this is the theory of social interactionists who claims that language is a social phenomenon. Machado (2009) agrees with Hoff (2005) and claims that language development of children is influenced by their environment. Hoff (2005) insists that these children acquire language because they want to communicate with people around them. L.S. Vygotsky suggested that „children's meaningful social exchanges prepare them for uniting though and speech into verbal though" (Machado, 2009, 12). Machado's view of the children is that they are active, curious and natural explorers and that the role of their parents and adults is to create adequate environment for them. Language is an important part of children's lives. They seek and use it because it allows them to understand. "With enough exposure and with functioning sensory receiving systems, children slowly crack the code and eventually become fluent

speakers" (Machado, 2009, 13). Vygotsky insists that language learning is biological, but children need an instructor which will affect the way how to use language and also how to think. These instructors of their cognitive processes are family, people around them, other children and teachers, whose role is "to find out through thoughtful conversation, observation and collaboration what concept a child holds during a jointly experienced happening and to aid the child to further mental construction(s)" (Machado, 2009, 13). The most famous representatives according to Machado are J. Bruner, J. McVicker Hunt.

Piaget's constructivist theory

The first who came with constructivism and who saw it as the view of development was Jean Piaget. According to Hoff (2005) Piaget and the other representatives of this theory believed that children acquire language because they construct it mentally while they interact with the environment. Machado (2009) points out emphasizing errors in children's speech. "Internal rules have been constructed and used for a period of time, but with more exposure to adult speech, these rules change and speech becomes closer to adult form. The rules young children used previously were their own construct and never modelled by adult speakers" (Machado, 2009, 13). There are many activities for teachers who tend to use constructivist's methods. The first of all, they should support the interests of the children. Also, they should help them to put their discoveries into words and notice their relationships. "A secure, unstressed environment encourages the development of children's ability to cooperate, respect one another, exercise curiosity, gain confidence in them, and figure things out on their own. They become autonomous learners" (Machado, 2009, 14).

There was the debate between this Piaget´s theory and nativist views of language according to Chomsky. According to Bochner they both agreed that "linguistic knowledge gradually becomes available to the child through heredity and maturation" (2003, 9). However Chomsky was more emphasized with the biological clock of children which they have before they are born and that the development of language is also innate, Piaget emphasized more the contribution of maturation and experience to the process of language acquisition and believed that child during the process of development has an active role. Bochner (2003) complements that"both cognitive

development and language acquisition were the outcome of children´s activity with objects, events and people in their immediate environment"(2003, 9).

Hoff mentions much more theories of language development as Bochner does. There is for example connectionism, which is described as "separate theory, because it entails a very specific view of how knowledge is built out of language experience" (2003, 26). She also points out theory of generativists, which deal with universal grammar that carry universal properties of language. According to Hoff, all of these theories of language development are adequate with exception of behavioural theory. She believes that language abilities of adults are not delimited to repeat words and sentences they have heard before and approves his theory on the example: "In 1959, Chomsky wrote a scathingly negative review of B.F. Skinner´s (1957) attempt to account for language in behaviourist terms, and he was successful in convincing the scientific community that adult language use cannot be adequately described in terms of sequences of behaviours or responses" (2005, 27).

2.2. Children´s language development

Cattell (2004) deals with children´s language development. He believes that babies start to talk about 1 year of age but he doesn't deny that it could be earlier. He claims that language development begins before child's first word and describes it on the example of crying - baby cries because it feels defenceless. It is the only way to complain about discomfort or hunger, which makes parent to come and fix the problem. For babies, crying has the great value of surviving. Cattell describes the process of crying very detailed: „The normal cry comes in brief burst of about a second, which pauses in between. Each burst of sound falls in pitch as it goes on. It´s been said that the quality of sound is like that of the vowel /a/ and it often is (though not always)" (2004, 3). Cattell (2004) also believes that there are some properties of the cries, such as rhythm of the burst and the pitches which are produced by the vibration of the vocal chords which is called intonation.

Cattell claims that if baby is about 2 months old, it starts to make cooing sounds which he explains as „variable consonant-like sound, made towards the back of the mouth cavity, followed by a variable vowel-like sound"(2004,3). Cattell (2004) believes that in comparison with crying, cooing makes baby feel pleasantly. He insists that this sound

reminds us the sound of speech but it is impossible to recognize the language this sound is belonging to. At the time baby is from 5 to 8 months of age, it starts to explore and master the sound which is making – consonants and vowels. Cattell (2004) claims that the way how the child makes these sounds vary from one to another.

After the period of cooing becomes the period of babbling. Cattell (2004) describes it as the kind of reduplication – babababa, gagagaga. He believes that baby doesn´t stop babbling even when it is speaking.

Hoff (2005) doesn´t agree with Cattell (2004), who believes that children produce their first word at the age of 1. Hoff (2005) insists that they start to make their first words when they are 2. She complements that by the end of the second year children have the vocabulary of 300 words and are also able to combine them however their articulation and phonological representation will improve later. Hoff (2005) claims that children at the age of 3 starts to master their grammar, they are able to produce two and three-word affirmative or declarative sentences and by the end of this age children don´t only start to make full sentences, questions and negated forms but also begin to improve the articulation, develop phonological properties of their language and introduce short accounts of past forms. According to Hoff (2005), the typical feature of 3 years old developing child is that he or she is able to make complex sentences whereas at the age of 4 his language acquisition is completed. The time before child move to school, his vocabulary, articulation, sentence structure and communicative skills still develop.

Woolfolk (2008) described the development of the language in the school years. She insists that 5 and 6 years old children are able to use the most of the sounds of their native language in correct pronunciation. The most difficult for them are the sounds of letters j, v, th and zh. They are able to use and to understand many words but tend to use those which are easier to pronounce. Children in the school years can master the right order of the words and syntax; however they can't make the passive form of the sentence. 5 years old children are able to understand the passive forms when they hear it but have problems with constructing it. The achievements of these children are their abilities to use complex grammatical structures, extra clauses, conjunctions and quantifiers (Woolfork, 2008).

Woolfolk (2008) insists that children in the age of 6 have a vocabulary of 8 000 to 14 000 words and 11 years old about 40 000. Early school year's children are able to

learn 20 words a day, because of using and enjoying language games and jokes but many of them have problems with using abstract words or understanding the subjunctive case. This is because of lack the cognitive ability to reason about unreal things. These children also can't understand metaphors and sarcasms but as soon as they are adolescences, they are able to use figurative language.

According to Woolfolk (2008) pragmatics involves adequate usage of language in conversation. "Children must learn the rules of turn-taking in conversation. Young children may appear to take turns in conversation, but if you listen in, you realise that they are not exchanging information, only talk time" (Woolfork, 2008, 68). The communication between children in late primary school starts to remind conversation. Adolescences tend to modify the style of their language to the situations and start to use slang.

Woolfork believes that 5 years old children start to develop metalinguistic awareness. It means that "their understanding about language and how it works becomes explicit" (2008, 68). Children are now ready to study rules of the language.

2.3. Language development in term of brain maturation

Sleeper describes early development of the brain. She believes that babies are born with nearly same number of neurons as people have during their lifetime. They don't need so many of these cells but they all are in the right place.

The development of the brain begins after baby is born. Every neuron is connected with each other even across long distance. These connections "occur at specialized sites of communication called synapses" (Sleeper, 2007, 9). Synapses form after the birth. The most synapses in the brain are between 9 months and two years of age. Neurons make synapses with other neurons by sending projections. "Neurons use electrical activity to send signals across their enormous lengths in order to arrive at distant synapses. To transmit these electrical signals over such long distances reliably, neurons surround their projections with a fatty substance called myelin" (Sleeper, 2007, 9). Myelin insulates the projections that neurons send and protect the electrical signals. Woolfolk (2008) points out the importance of the process of myelination in thinking and learning and describes it as the covering of neuron fibres. "This process is something like coating bare electrical wires with rubber or plastic"(Woolfolk, 2008, 33). This covering of the

myelin makes transmission of the messages faster and more efficient. Sleeper believes that although the connections between neurons on long distance occur in the 9 months of age, development of myelin and myelination is still developing in the childhood. In this time the inactive neurons die and leave only those, which are communicating successfully. Woolfolk claims that "myelination happens quickly in the early years, but continues gradually into adolescence and is the reason the child's brain grows rapidly in size in the first few years of life" (2008, 33).

Woolfolk (2008) points out the development of cerebral cortex that develops more slowly than the rest of the brain. Firstly mature the part of the cortex that control physical motor movements, than the area that control senses and last one is the part that controls higher-order thinking processes. "the temporal lobes of the cortex that play major roles in emotions and language do not develop fully until the secondary school years and maybe later"(Woolfolk, 2008, 33).

Woolfolk points out the aspect of the brain functioning called lateralisation, which has an implication for cognitive development. She describes it as the "specialisation of two hemispheres of the brain" (2008, 34) which means that brain is divided into two halves and each one controls the opposite side of body. These parts of the brain affect our behaviour. Left hemisphere controls the language and right deals with our emotion and spatial-visual information.

According to Sleeper "the maturing and refining of the brain early in life parallels the development of language skills indicating that cellular processes may be required for language development" (2007, 11). Sleeper (2007) believes that the reason why the second language acquisition is so difficult for adults is that the structure of the brain and the connections are stable. Scientists suspect that the reason is that brain is no longer able of dynamic changes as it used to during period of first language acquisition in childhood - the time when they were developing their native language. "Interestingly, though it is more difficult to learn a second language later in life, successful first language acquisition seems to provide a template for additional language acquisition" (Sleeper, 2007, 12).

2.3.1. The brain stimulation in development and learning

Woolfolk (2008) points out the importance of brain stimulation in development and learning. ”In fact, animal studies have shown that rats raised in stimulating environment, with toys, tasks for learning, other rats, and human handling, develop and retain 25% more synapses than rats who raised with little stimulation” (Woolfolk, 2008, 33). From this example is it clear, that both, social and physical stimulation are important for development and learning. However, according to Woolfolk, (2008) the objects of physical stimulation such as toys and tasks do not lead to increased development of the brain.

Woolfolk believes that extra stimulation of the brain will not improve children’s development that get adequate amount of stimulation. “So spending money on expensive toys or baby education programmes probably provides more stimulation that is necessary.” Pots and pans, blocks and books, sand and water all provide excellent, varies stimulation – especially if accompanied by caring conversations with parents, caregivers or teachers (2008, 33).

Woolfolk (2008) insists that the most rapid development of the brain occurs in early childhood. There are many negative effects which damage the brain and causes dramatic negative effects on the brain development such as mother’s intake of drugs, alcohol and caffeine or toxins in the infant’s environment. But because of the plasticity of the brain it can overcome these negative effects and damages.

3. English language learning

Jean Piaget's theory of cognitive development, his view of child's understanding of the world, the constructivist theory of language development and many of his discoveries have a great impact for teaching and learning.

3.1. Children's abilities to learn English language

„Young children do not come to the language classroom empty-handed. They bring with them an already well-established set of instincts, skills and characteristics which will help them to learn another language"(Halliwel, 1992, 168).

Halliwell (1992) believes that young learners are able to grasp and interpret the meaning of the words without understanding and are able to know what the new word mean from the intonation, gestures or facial impressions. As soon as they can understand the message, they are able to understand the language. This ability to grasp meaning is highly developed before their entering to school. Halliwell insists that "even though their mother tongue skills are already well established, they may well find it difficult to follow purely verbal instructions and information. When this happens, or sometimes simply out of laziness or inattention, children tend to rely on their ability to read the general message"(1992, 3). Children use this message-interpreting skill when they are learning they mother tongue and continue to use it when they encounter a new language at school. The role of the teacher is to develop and support this skill by using gestures, intonation, demonstration and facial expressions.

Halliwell (1992) points out another ability of these children, which is the ability of using their limited language very creatively. They are inventive not only in grammatical forms or concepts, but even in creating completely new words which then come into their family vocabulary. This is the basic phenomenon in language development. Children use this ability when they acquire their mother tongue. Adults do the same when they try to speak foreign language. They often don't know the words what they want to say so they try to make up the words or say them in their mother tongue with different accent. This is what is happening in English language classrooms. To improve children's language skills, teachers have to encourage them to find some way of

expressing themselves and make them to construct language in actively. The best way to reach this is playing games with children.

Another quality of English language learner is his capacity for indirect learning, which means that child is able to notice and remember something he or she wasn´t supposed to be learning. For example guessing is the typical way to learn language indirect way because child id concerned on the task, not on the language. "As far as the children are concerned, they are not trying to learn phrases: they are concentrating on trying to guess right. However by the time they have finished the repeated guessing, they will have confirmed words and structures they only half knew from the beginning. They will have got the phrases firmly into their minds. They will probably even have adjusted their pronunciation"(Halliwell, 1992, 5). Both conscious direct learning and subconscious indirect learning have an impact for learning English language. That is the reason why teacher should provide scope for both systems to operate. The best way is allow them to play games which make them to use language while their minds are focused on the task of the game.

According to Halliwel (1992), very important is children's great pleasure in finding and creating fun. Teacher should give them the opportunities to express their individualities and bring drama into the learning language. Another typical feature is their sense of fantasy and imagination. The best the teacher should do is to build on this factor for example by let them draw the monsters and then to talk about it. Also book is a great instrument for stimulation children's imagination. "Language teaching should be concerned with real life. But it would be a great pity if we were so concerned to promote reality in the classroom that we forgot that reality for children includes imagination and fantasy. The act of fantasising, or imagining, is a very much an authentic part of being a child" (Halliwell, 1992, 7).

Children have also great delight in talking. This is the most important and most obvious instinct for the teacher. That is why he should make them work in pairs. "Children need to talk. Without talking they cannot become good at talking. They can learn about the language, but the only way to learn to use it is to use it. So our job is to make sure that the desire to talk is working for learning not against learning" (Halliwell, 1992, 8).

4. Piaget and English language learning

Piaget defined learning as "the passive formation of associations" (Woolfolk, 2008, 58). It means that children construct their understandings on the base what they already know. According to Woolfolk (2008) Piaget believed that cognitive development has to come before children start to learn and that children are able to understand as soon as they develop the operation of class inclusion.

One of the most important principles in learning process, according to Piaget, is the interaction of children between their teachers and peers. Children need to be challenged, receive feedbacks and test their thinking by seeing how others solve the problems. First, they should observe and then to talk and write about their experiences. The things they have experienced are the raw material for thinking. Communication with teachers or peers makes them to use and change their thinking (Woolfolk, 2008).

4.1 The role of plays in English language learning

Is it mentioned earlier, that children are able to learn the most when they are playing and that human brain develops by stimulation. According to Woolfolk (2008) Piaget believed that one of the best ways of this stimulation is by playing. He claimed that children provide this kind of stimulation at every stage of their development. Infants in the sensorimotor stage learn by acting on their environment - they are exploring, shaking and sucking, while pre-schoolers in preoperational stage use pretend play when they are speaking or interacting with each other. They like to play games with predictable rules. Children in concrete–operational stage love fantasy, the games they play are more complex. They also start to play sports where they can learn how to win or lose and make cooperation with other children. The language of these children is more sophisticated. Adolescents in formal – operational stage play because they want to develop socially and physically (Woolfolk, 2008).

4.1.1. Piaget's cognitive theory of play

Lytle (2003) deals with the two Piagetian theories of children play. He claims that for the first time when Piaget wrote about play, he tried to describe how children understand moral rules. The second time he tried to describe movement from action to though and how the first schemas of cognitive representation develop.

In 1932 Piaget became to observe the interactions between boys and girls in natural situations who were playing traditional games and studied how the rules of that games develop. Later, he made a theoretical model and criteria for moral development. Lytle insist that "it was a study of sociomoral psychology that looked down neither on the analysis of thought content nor on the social structure of participation upon which knowledge is built" (Lytle, 2003, 101). When he was observing how the children play, Piaget "finds the negotiation of rules of adjustment among the personal initiatives, the cultural conventions, and the criteria of fairness and justice. It is a matter of personal adjustments within a framework of interpersonal relationships" (Lytle, 2003, 102). In spontaneous play Piaget found the social and moral logic and games started to call admirable social institutions while believes that when we want to understand children's morality we have to understand the rules of the games. However, this analyse of the games disappears.

Piaget in his second theory of play abandoned all his elements of analyses such as cultural and interpersonal principles and started to be focused on "cold structure of cognitive representation and the abstract elements of its operation" (Lytle, 2003, 103). Lytle (2003) named this theory of Piaget as The cold cognitive theory of child's play where he started to use method of analysis which was very different from his sociocultural model. "He focused his attention on the configuration of great thought structures, in which interpersonal context, experiences, and specific content with regard to games do not seem to have a relevant function"(Lytle, 2003, 103). Piaget made up his most popular scientific work which later become a paradigm where he "considers child's play, along with imitation and language, as one of the bases for children's ability to use symbols and as the real key to the child's entry into the world of thought" (Lytle,2003, 103).

Barnes (1995) also deals with Piaget's theory of play. He agrees with Lytle (2003) who believe that it has a base on the observation of Piaget's own three children and on observation and interviews of children in Geneva. His theory of play is tied to his theory

of the stages of intellectual growth and theory of moral development which says how children come to understand the rules through the games they play. Barnes (1995) describes two activities that are important for development. These are play (product of assimilation) and imitation (product of accommodation). ”Piaget recognized that when children play they do so primarily for the enjoyment it gives them, rather than anything else. The goal of imitation, by contrast, is not enjoyment; here the child is copying another person’s action in order to understand the nature of the action” (Barnes, 1995, 239).

According to Barnes (1995) Piaget made up three play stages which are in relation with Piaget’s stages of cognitive development.

1. Mastery stage is formed by children from 1 to 2 years of age who are in the sensorimotor stage. The most natural type of play for these children is solitary play which makes them to behaviour in the way they learnt through imitation such as repeat and practice. Barnes claims that this stage “is necessary for the development of symbolic representation, which in turn is a prerequisite for genuine interaction and the creation of shared meaning between individuals” (1995, 239).
2. Play stage is made of children who achieved preoperational stage (3 to 6 years olds) which starts to use symbols in their pretend plays but because of their egocentrism, they are not playing together with their peers. These plays are solitary and parallel (Barnes, 1995).
3. Game stage includes children from 7 years old and older (concrete operational stage) who start to play in a co-operative way and become less egocentric with intellectual and linguistic sophistication. They gain the social perspective and are able to understand the game rules. These children carry social perspective-taking skills which enable them to see things from other perspectives which are important when they start to play more organized plays based on the rules and team sports (Barnes, 1995).

Piaget felt that children test their ideas and learn how to regulate their behaviour through play (Burke, 2010). There are two outcomes of play that are important for children; first-playing makes children happy and satisfied, second-playing produces

learning. Lindon (2001) describes three main categories of children's play according to Jean Piaget:

1. Practice play is typical for children from birth to two years of age. Piaget claimed that 6 months old children start with exploratory play which is based on physical activities (Lindon, 2001). Smith (2010) claims that practice play is early sensorimotor play which is the same as animal play.
2. Symbolic play-Lindon (2001) claims that two year's old children are interested in this type of play because it makes their ideas visible. They start to think about the world and import their ideas into their play. According to Smith (2010) this type of play is possible when children's symbolic function develop. It is also called pretend and fantasy play.
3. Games with rules –typical for children older than 6 years who are able to use abstract ideas and understand the rules (Lindon, 2001). These plays are coordinated with other players (Smith, 2010).

Burke (2010) points out the importance of children's symbolic play because she claims that it is the ideal type of play for children's literacy development and complains that "current trend in early childhood education is to emphasize earlier and earlier textual literacy, usually at the expense of playing. Play-based programs have been abandoned in favour of structured educational programs. More often than not, children are passive participants in such programs, which see them to receptacles waiting to be filled with knowledge" (Burke, 2010, 94).

Burke (2010) believes that symbolic play is the base for literacy, because symbols represent objects, events or ideas and that symbols are also the words. "Whether we are adults or children, our thinking skills involve the manipulation of words – and ergo, symbols – as we use words, numbers, images, and notations to describe world around us. The foundations of these manipulations are the real beginnings of literacy, not necessarily a child's first experiences with books" (Burke, 2010, 94).

Even the smallest children are playing with symbols; they can paint or draw them, which are transformed into linguistic expressions which are the base for textual and oral literacy. "It is interesting to note that during play, children can use complex forms of language. They use a larger vocabulary, which necessitates longer utterances than they

might use in another context. These are important attributes of play for later literacy development" (Burke, 2010, 94). Symbolic play is ideal for children who learn English language, because for them it is the only safe way how to practice new language.

Burke (2010) describes some important ideas every teacher should consider before he decided to teach English language through play. She claims that teacher should realize that there are some children in the classroom who are outgoing and risk taking, however some of them are not. If teacher decide to play games with them, he have to make the group of children which includes both types of these children. Teacher should also deliberate that there are some children who learn quickly and others will take longer. Good teacher also motivates children. But this motivation may vary. It depends on the support of their parents how strong or weak motivated the child is. Teacher's task is to prepare diversity of texts, visuals and scenarios, explain his child how is English language important in their future lives. He has to also communicate with his children, reassure and involve their parents into the learning process (Burke, 2010).

4.2 Games and activities in ELT for children

From the theories of Jean Piaget is it clear that children are learning the most, when they discover, explore, guess and play. Lawson (2008) made a list of the most popular children's games and activities which enable them to learn English language quickly and more effective. She deals with language arts like peaking, listening, reading, writing, viewing and representing. She introduces children not only about the alphabet, colours, numbers, and days of the week but also with geography, media, environment depends who old are the children she is working with. I decided to choose few examples of her English language activities and games which are adequate for young children

Children who are not yet familiar with English language should be on their first lessons focused on English alphabet. Lawson (2008) claims that teacher should introduce only the limited number of symbols each lesson to make the children concentrate. There are many materials teacher can use on these lessons, for example picture books with alphabet, letter cards, posters or newspapers. She points out the activity where children draw their names vertically on the paper and highlight the first letters. Their task is to record as many English words as they know that begin on each letter. For making this

game more interested, children may choose only that kind of words which reflect their hobbies and skills.

Young children like to draw, talk and work with colourful objects. They also like to improve their colours vocabulary (blue, pink, yellow, red, orange, green) and colour objects (apple, banana, carrot, sky, green). She lets children to use picture books, crayons, magazines, paint and paint brushes. She points out activity which allows children to discover and explore: Teacher calls out some colour and children have to find and touch that colour in the classroom. The child, who will be the quickest, may call another colour out.

Lawson (2008) points out the topic centred on numbers and counting. She claims that teacher has to work with the numbers which children already know. He or she can bring on the lesson many kinds of game sheets, bingo chips, number cubes or cards. One of the best ways for practicing numbers and counting according to Lawson (2008) is by collective games and peer activities. The most popular game is called 'Cross out'. All the each pupil needs for playing this game is a number cube, pencil and 2x3 Cross out game sheet with numbers from 1 to 6. Lawson (2008) describes the rules of this game: "Have player A roll the number cube, count the number of dots shown, and say the number aloud. Then, tell him/her to cross out the corresponding numeral on his/her game sheet. Next, have player B roll the number of dots shown, say the number aloud, and cross out the corresponding numeral on his/her game sheet. If a student rolls a number that he/she has already crossed out, he/she misses a turn, and play goes to the other student. The player who first rosses out all six numbers on his/her game sheet wins" (2008, 89).

Lawson (2008) points out the using of calendar in teaching children. It is helpful if teacher wants to explain days of the week or months of the year. On these lessons children became to be familiar with new information such as vocabulary (week, Monday, Friday, February, month, year, June, July). They can also improve saying of the date correctly. According to Lawson (2008) teacher can use many activities to make children to practice. He or she can discuss with children about their favourite days of the week or singing the Days of the week songs. Lawson gives us an example of child's independent activity: "Cut out and glue the days of the week onto the cycle chart in the correct order. For each day of the chart, draw a picture of an activity that you do on that

day of the week" (2008, 96). The days of the months are also the object of discussion. Teacher can talk with his pupils about their favourite months of the year or about activities they like to do on that month. Children can also share how their families celebrate holidays and festivals.

There is also another topic which is learned the most effective in cooperative way- Hobbies and Interests. Children like to talk about their favourite activities, singers or actors with each other. That's the reason why their speaking and communication is so natural. They can also improve their vocabulary with phrases like 'listening to music', 'playing musical instruments, 'making puzzles' or 'collecting sports cards.' There are many ways how to work with this topic. According to Lawson (2008) the simplest and the most effective way is to let children to share and present their hobbies and interest. "Consider having guests present hobbies and interests with which students might be less familiar, such as stamp or coin collecting" (Lawson,2008, 159).

According to Lawson (2008) there are so many topics teacher can deals with. She claims that teacher should discuss with children about their safety. For example, teacher should explain to children that they should never share their personal information with strangers. "Discussing the topic of personal information with all students provides an opportunity to review personal safety issues, emphasizing that students should never share personal information with strangers, and they should only share the information with friends or classmates if they have parental permission" (Lawson,2008 104). There are many activities which can be used with this topic. For example, teacher may introduce children with using local telephone book, he or she can also let children draw the map of the city with the important places such as hospital or library and discuss with them the safe routes to and from school. Teacher has to be interested in the safety of the children because his or her task is not only to teach them, but also to bring them up.

Conclusion

Jean Piaget made us to look at the child as at the little constructivist, discoverer and explorer whose understanding of the world depends on his or her own experiences. The work deals with his theories of cognitive growth, children and their language development and his theories of play.

The work contains the comparison of two theories of cognitive growth - continuous and discontinuous theory and provides us with the view of the cognitive development from two aspects - Lev Vygotsky and Jean Piaget who both belong to the representatives of discontinuous theory while Piaget saw the child as an independent human being whereas Vygotsky as a social being who develops because of interaction with others. The work further provides outline of the Piaget's theories of cognitive growth, the principles of his theory and describes the four stages of cognitive development that every growing up child pass through.

The work deals with children's language development with the comparison of its different theories. Piaget was the representative of the Constructivist's theory who believed that children acquire language because they construct it mentally while they interact with the environment.

The aim of the work is to implement Piaget's theories in the English language teaching. Teachers who tend to use Piaget's Constructivist's method in the teaching process support the interests of the children, help them to put their discoveries into words and make the secure environment for them where it is safe for them to develop and cooperate with others.

There is another Piaget's discover which has a great impact for teaching – his cognitive theory of play. Piaget claimed that child's developing brain has to be stimulated and one of the best ways of this stimulation is by playing. There are three categories of play according to Piaget - practice play, symbolic play and games with rules. The work gives an attention to the symbolic play because it is the ideal type of play for children's literacy development.

There are so many English language activities, games, pair-works or independent works which are used in teaching process nowadays. However, there are many teachers who

don’t care about children’s needs or about supporting their abilities. There are many schools with structured educational program where children are passive participants filled with knowledge. This is the reason why teachers should use Piaget’s theories and instructions, because it is the only way to teach and bring up independent, intelligent and sociable human beings.

The work describes some popular English language games and activities which help children to learn foreign language more quickly and more effective.

Piaget’s view of the child provides us with the children’s cognitive growth, their language development and thinking processes. He made the contributions to our understanding of their development and thought and this is the reason why we consider him as one of the biggest psychologist whose theories are still applied in the field of education.

Resumé

Úlohou práce je priblížiť čitateľovi osobu Jeana Piageta, jeho teórie a ich uplatnenie v procese výučby Anglického jazyka. V prvej kapitole sa práca zaoberá definíciou pojmov kognitívny vývin a vývinová psychológia a objasnením jednej z najčastejších otázok vývinovej psychológie a tou je, či je kognitívny vývin proces kvalitatívnych alebo kvantitatívnych zmien. Na túto otázku odpovedali dve skupiny teoretikov rôzne; prvú skupinu tvorili tí, ktorí ľudský vývin považovali za kontinuitný proces ktoý prebieha plynule, bez prudkých zmien. Druhá skupina, naopak považovala ľudský vývin za diskontinuitný proces založený na kvalitatívnych zmenách, ktorý je typický svojimi náhlymi zmenami vo vývine, kde ľudký jedinec prechádza niekoľkými štádiami, pričom každé štádium je nové v kvalite, psychickej organizacii a prináša nové modely správania.

Práca porovnáva názory a teórie Jeana Piageta s druhým kľúčovým predstaviteľom diskontinuitnej teórie - Leva Vygotského. Lev Vygotsky (1896 - 1934) bol ruský scholár ktorý prvý prišiel s teóriou, že duševný vývin jedinca je úzko spätý s prostredím odkiaľ pochádza. Veril, že dieťa sa vyvíja na základe okolností a očakávaní spoločnosti a kultúry v ktorej vyrastá a že tento vývin je časť jeho interakcie s ostatnými. Vygotsky tvrdil, že deti sa učia z pozorovania činností a aktivít ľudí okolo seba a učia a zdokonaľujú sa práve ich pozorovaním.

Vygotsky a Piaget sa obaja zhodujú na tom, že vidia dieťa ako malého vedca, zvedavého objaviteľa ktorý sa rád učí a objavuje svet okolo seba, zatiaľ čo Piaget vidí dieťa ako nezávislého ľudského jedinca, Vygotsky ho vidí ako jedinca spoločenského, ktorého vývin závisí na interakcií s ostatnými.

Práca sa zameriava na Jeana Piageta, (1896-1980) filozofa, biológa, a jedného z najvplyvnejších teoretikov a psychológov a na jeho prínos do oblasti kognitívneho vývinu. Piaget sa zaoberal pozorovaním detí, ich vývinu a myšlienkovými pochodmi. Práca analyzuje jeho teóriu kognitívneho vývinu a objasňuje jeho presvedčenie, že vyvíjajúce sa dieťa prechádza niekoľkými štádiami vývinu.

Práca ďaľej definuje jednotlivé princípy Piagetovej teórie. Piaget veril, že dieťa je konštruktivista, ktorého chápanie sveta je založené na jeho vlastných skúsenostiach a ktoré je schopné tejto konštrukcie vďaka dvom mentálnym funkciám – organizácie a adaptácie. Organizácia je definovaná ako vrodený a automatický proces. Ľudia majú tendenciu organizovať svoje myšlienkové procesy do psychologických štruktúr ktoré sa využívajú na pochopenie sveta a pri interakcii s ľudmi. Pojem, súvisiaci s organizáciou je schéma ktorý je definovaný ako obraz v detskom mozgu o niečom čo zažilo a tiež mentálna štruktúra ktorá vytvára obraz toho čo sa stane ked dieťa niečo spraví. Hlavná úloha organizácie je podporovať adaptáciu a to prostredníctvom asimilácie a akomodácie.

Jednou z definíci pojmu asimilácia v tejto práci je tá, ktorá ju chápe ako proces vytvárania schémy z predchádzajúcej skúsenosti, zatiaľ čo akomodácia je definovaná ako proces zámeny už existijúcich schém alebo vytvárania nových ktoré sú využívané pri spoznávaní predmetov a zažívania skúsenosti ktoré sa nehodia do ich už existujúcich schém.

Piaget sa stal najznámejším vďaka jeho objavu štádií kognitívneho vývinu. Rozlišuje sensorimotorické štádium, predoperačné štádium, štádium konkrétnych operácií a štádium formálnych operácií.

Sensomotorické štádium tvoria deti od narodenia do 2 rokov ktoré začínajú spoznávať seba a prostredie pomocou svojich motorických a reflexných činností. V tomto období nie sú schopné hovoriť, ani premýšľať o veciach ktoré predtým nevideli, nedržali alebo necítili.

Predoperačné štádium je charakteristické pre deti od 2 do 7 rokov ktoré sú schopné vytvárať mentálne symboly – slová a obrazy, osvojujú si jazyk a začínajú myslieť symolicky, konkrétne a intuitívne. Batoľa v tomto štádiu začína predstierať, že je tým, kým nie je. Táto predstieracia hra pomáha dieťaťu adaptovať sa do jeho budúcich sociálnych rolí. Dieťa v predoperačnom štádiu začína prejavovať známky egocentrizmu.

Štádium konkrétnych operácií tvoria deti od 7 do 11 roku ktoré začínajú využívať konkrétne mentálne operácie, ako reverzibilnosť a flexibilnosť. Dieťa v tomto štádiu si osvojuje základné pravidlá logiky – identitu a ekvivalenciu a je schopné pochopiť, že predmet a jav ostáva tým istým, aj keď sa jeho dimenzia zmení. Ďaľšia typická črta

dieťaťa v štádiu konkrétnych operácií je jeho schopnosť usporiadania predmetov do poradia podľa určitých vlastností – seriácia.

Štádium formálnych operácií je posledné z Piagetových štádií kognitívneho vývinu, ktoré začína v 11 roku a pokračuje až do dospelosti. Typická črta adolescenta je jeho schopnosť hypotetického a deduktívneho myslenia, racionálneho uvažovania a logického premýšľania o hypotetických udalostiach ktoré sa nie vždy zakladajú na realite.

Druhá kapitola práce sa venuje vývinu jazyka a porovnaniu jednotlivých jeho teórií, pričom dôraz sa kladie na Piagetovu konštruktívnu teóriu jazyka. Piaget bol presvedčený, že dieťa si osvojuje jazyk vďaka schopnosti mentalnej konštrukcie, ktorú si vytvára počas interakcie s ostatnými.

Jazyk dieťaťa sa začína vyvíjať v momente keď začne plakať. Novorodenec je zreniteľný a plač je jediný spôsob akým vyjadruje svoju nespokojnosť. Keď si dieťa prejde obdobím blábolenia, okolo prvého až druhého roku života začne produkovať prvé slová. Na konci druhého roku už má slovnú zásobu obsahujúcu 300 slov ktoré je schopné kombinovať. 3-ročné dieťa sa začína zdokonaľovať v gramatike a používať komplexné vety. Pred jeho príchodom do školských ľavíc sa jeho slovná zásoba, artikulácia a komunikačné schopnosti stále rozvíjajú. Dieťa v školských rokoch si zdokonaľuje slovnú zásobu a začína chápať trpnému rodu ktorý však ešte nevie vytvoriť. 6-ročné dieťa má slovnú zásobu 8 až 14 000 slov. 11-ročné dieťa so slovnou zásobou 40 000 slov je schopné naučiť sa 20 slov denne vďaka zábavným jazykovým hrám.

Práca sa ďaľej zaoberá vývinom mozgu ktorý má veľký vplyv na vývin jazyka u detí a taktiež vyzdvihuje dôležitosť sociálnej a fyzickej mozgovej stimulácie, ktorá vplýva na jeho správny vývin ako aj na jeho schopnosť učenia sa.

Tretia kapitola charakterizuje schopnosti, zručnosti a inštinkty dieťa v učení sa cudzieho jazyka, vďaka ktorým je jeho učenie oveľa efektívnejšie. Dieťa je schopné pochopiť význam slov bez toho aby rozumelo jeho významu. Dokáže tiež využívať svoju obmedzenú slovnú zásobu veľmi kreatívne a dokáže sa naučiť viac informácií nepriamou ako priamou cestou, keď zachytí veci ktoré sa pôvodne ani nemalo naučiť.

Jednou z najdôležitejších schopností dieťaťa je jeho schopnosť predstavivosti, zábavy a učenia sa prostreníctvom hrania hier.

Cieľom práce bolo uplatniť Piagetove teórie v procese výučby Anglického jazyka. Piaget prišiel s kognitívnou teóriou hry, ktorá má veľký význam na učenie sa. Piaget bol presvedčený, že vyvíjajúci sa detský mozog musí byť stimulovaný a tá sa najlepšie uskutočňuje prostredníctvom hrania hier a interakcie s ľuďmi. Rozdelil hry na tri kategórie, praktickú hru, symbolickú hru a hru s pravidlami, pričom kladie dôraz na symbolickú hru, ktorá predstavuje ideálny typ hry dôležitý pre rozvoj detskej gramotnosti. To je dôvod, prečo záver práce obsahuje populárne a efektívne detské hry, activity, individuálne ako aj kolektívne práce.

List of Resources

BARNES, P. Personal, social and emotional development of children, Oxford: Blackwell publishing in association with The Open University, 1995. 360 p. ISBN 0-631-19423-1

BIRCH, A. Developmental psychology: from infancy to adulthood. 2. Edition. Basingstoke: Macmillan, 1997. 287 p. ISBN 0- 333-66959-2

BOCHNER, S. – JONES J. Child language development: Learning to talk. London: Whurr publishers, 2003. 241 p. ISBN 1-86156-379-5.

BRAIN, Ch. - MUKHERJI, P. Understanding child psychology. Cheltenham: Nelson Thornes Ltd, 2005. 216 p. ISBN 0-7487-9084-5.

BURKE, A. Ready to learn: Using play to build literacy skills in young learners. Ontario: Pembroke Publishers, 2010. 128 p. ISBN 978-1-55138-249-4.

CATTELL R. Children's language: Consensus and controversy. Norfolk: Biddles Ltd, 2004. 276 p. ISBN: 0-826-47415-2.

COON, D. – MITTERER J.O. Introduction to psychology: Gateways to mind and behaviour, 12.edition, Wadsworth: Cengage learning, 2008. 622 p. ISBN 0-495-59911-5

HALLIWELL,S. Teaching English in the primary classroom. New York: Longman Publishing, 1992. 168 p. ISBN 0-582-07109-7

HOFF, E. Language development.,4. Edition. Wadsworth: Cengage learning, 2004. 490 p. ISBN 0-495-50171-8.

LAWSON, J. Hands-on English language learning: Early years. Manitoba: Portage & main press 2008, 354 p. ISBN 978-1-55379-196-6.

LINDON, J. Understanding children's play. Cheltenham: Nelson Thornes, 2001 194 p. ISBN 0-7487-3970

LYTLE, D.E. Play and educational theory and practice. Westport: Greenwood publishing group, 2003. 331 p. ISBN 1-56750-684-4.

MACHADO, J.M. Early childhood experiences in language arts: Early literacy, 9. Edition. Wadsworth: Cengage learning, 2009. 665 p. ISBN 1-4354-0012-2.

NEVID, J.S. Psychology: Concepts and applications, 2. Edition. Boston: Cengage learning, 2007. 655 p . ISBN 0-618-73035-4.

OAKLEY, L. Cognitive development. Routledge: Taylor & Francis group, 2004. 149 p. ISBN 0-415-24234-7.

OATES, J. – GRAYSON A. Cognitive and language development in children. Oxford: Blackwell publishing Ltd in association with The Open University, 2004. 347 p. ISBN 1-4051-1045-7.

SIEGELMAN C.K. – RIDER E.R. Life-span human development, 6. Edition, Wadsworth: Cengage learning,2008. 524 p. ISBN 0-495-55340-9.

SHAFFER, D.R. – KIPP, K. Developmental psychology: Childhood and Adolescence. 8. Edition, Wadsworth: Cengage learning, 2009. 647 p. ISBN 0-495-60171-13

SHAFFER, D.R. Social and personality development, 6. Edition, Wadsworth: Cengage learning, 2008. 662 p. ISBN 0-495-600-38-5.

SLATER, A. – BREMNER J. G. An introduction to developmental psychology. Oxford: Blackwell Publishing, 2003. 583 p. ISBN 0-631-21395-3

SLEEPER, A.A. – CHUDLER, E.H. Speech and language, New York: Infobase publishing, 2007. 123 p. ISBN 0-7910-8952-5.

SMITH P.K.- GOSSO Y. Children and play. Oxford: Blackwell publishing, 2010. 256 p. ISBN 978—0-631-23521-7.

SUTHERLAND, P. Cognitive development today: Piaget and his critics. London: Paul Chapman publishing Ltd., 1992. 204 p. ISBN 1-85396-133-7.

TAYLOR, L.M. Introducing cognitive development. East Sussex: Taylor & Francis group, 2005. 267 p. ISBN 1-84169-353-7.

WOOLFOLK, A.E – HUGHES, M. – WALKUP V. Psychology in education, Essex: Pearson Education Limited, 2008. 824 p . ISBN 978-1-4058-3541-1.

ZASTROW, CH. – KIRST-ASHMAN K.K. Understanding human behaviour and the social environment, 8 edition. Belmont: Cengage learning, 2009. 727 p. ISBN 0-495-60374-0.