Teaching and learning in kindergarten

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Abstract: Teaching and learning in kindergarten is related, on the one hand, to the principles, methods and forms of teachers’ work that should optimally contribute to pre-school child development and learning, and on the other hand, to the issues of the developing their reasoning and other aspects of their personality. It is for this reason that the responsibility of kindergarten teachers, in view of instruction and learning of young children, is huge. Kindergartens must strive to ensure quality teaching and learning environment for very young children, which in addition fosters an atmosphere of pleasure and comfort. This paper aims to present the significance of instruction and learning of pre-school children today, in particular that within the institutionalised education (in kindergarten). The author’s points of interest were how instruction and learning of young children in kindergarten was perceived in the past and the contemporary view on modern instruction and learning of pre-school children in kindergartens.

Key words: teaching; learning; pre-school child; kindergarten

1. Introduction

Opinions of experts, regarding instruction and learning of small children, are split to a certain extent. Krofič (2001) said that, curricular theoreticians are those that should define the basic guidelines of a curriculum for each educational level and thereby direct the focus of people implementing it, i.e., kindergarten teachers, to adequate forms and methods these should use in their teaching. Krofič also defended a position that modern planning of pre-school curricula cannot circumvent experts in specific subjects, which have been included in the planning process for each activities area, yet he claimed that these experts are primarily committed to a planning logic that arises from the subject and special didactics, which often tends to lead to overly “scholarised” educational activities. As it is not convinced that, there is a uniform viewpoint among curricular theoreticians regarding this issue, it is believed that it is necessary to encourage polemic discussions supported by expert argumentation of curricular theoreticians, experts in different subjects and practitioners. One of the bases for such a discussion is the psychological theories on learning, which defend diverse opinions on encouraging reasoning and learning with very young children.

2. Objective

The objective of this paper is to account for the significance, in present time, of teaching pre-school children and their learning, in particular in light of the institutionalised education (in kindergartens). The key research questions the author will try to provide answers to are:

(1) Why is it important to discuss instruction and learning of young children?

(2) What is the historical view on instruction and learning of young children in kindergartens?
3. Methodology

This paper is a theoretical discourse on teaching small children in kindergartens and their learning, based on a descriptive method of non-experimental pedagogic research and on the methods of analysis, synthesis and description.

4. Why is it important to discuss instruction and learning of young children?

A child’s development is a dynamic process, which is in interaction defined by both the heredity and the environment, whereby the latter implies both the physical and the social environments. The majority of recent pedagogic concepts eclectically combine the discoveries of various theories, pertaining to developmental psychology, most commonly quoting the authors, such as Piaget, Bruner, Vygotsky, Freud, Erikson and their colleagues or disciples in the very basis of kindergarten curriculum itself.

When trying to interpret a child’s development, it cannot and should not by-pass the plurality aspect of developing and growing up in different cultures and therewith neglect neither the influence of various circumstances within a culture or among cultures nor views on a child’s development and learning, which was formed in distinctive socio-historical contexts. These have been marked by scientific discoveries of psychology and developmental psychology as part of the latter, as well as a number of other disciplines (philosophy, sociology, pedagogy, anthropology and ethnology) and prevailing educational concepts over individual periods, which are always more or less dependent on the ruling ideology (Woodhead, 1999).

In most contemporary concepts in pre-school education, a child represents the centre or the basis of any educational activities in kindergarten and in this respect of developmentally adequate programmes or curricula.

Heredity and the environment (physical and social) are important for a child’s development. Both determinants contribute to their growth and development, excluding the black-white dichotomy of nature versus nurture. Although heredity has greater influence on, e.g., a child’s temperament, energy level or sequence of physical or intellectual development, none of the physical traits, apart from maybe eye and hair colour, shape of nose, is determined only by heredity or only by the environment (external influences). Learning to walk thus depends on the muscle strength and the development of coordination (both of which is hereditary), yet it also depends on the environment, not only in the development of walking as a skill, but also in view of encouraging other skills, such as rolling, sitting and climbing, which people naturally acquire prior to the ability to walk.

Development is intertwining of quality-and quantity-related changes or development periods and development linearity, whereby new aspects of the development incorporate the preceding ones and build on them. The development proceeds in foreseeable directions towards improved integrity, organisation and internalisation. It is about the possibility of widening and deepening children’s experience and knowledge, using different levels of symbolic knowledge, for example through drawing, painting, discourse, etc. Malaguzzi (1993) used the metaphor of “100 languages” to describe the diverse models which children use to illustrate a certain meaning. Children will use different sets of symbols to represent their experience and knowledge, such as, imitations as part of symbolic play (using a cooking spoon to imitate the mixing moves of a grandmother), followed by object and word transformation (children use a random object to represent a phone and converses through it with a person that does not exist).

Social context and supportive atmosphere are also vital for children’s development. Bowman & Stott (1994) agreed with Bronfenbrenner (1989), who said that children’s development can be understood best within a
socio-cultural context, by underlining that the rules are the same for all children, yet the social context is the one that shapes children’s development into different forms. A child tests his/her own hypotheses in various ways: through social interaction or physical manipulation or by means of his/her own structures of mind. The development of mind structures, for example, results in understanding of different symbols, yet the symbols that the child uses (numbers, alphabet) are the ones that are commonly used within his/her culture and transferred to him/her from the adults.

5. Historical aspect of instruction and learning of young children in kindergarten

The attitude towards children and childhood keeps changing all the time. History hence recognises different views on children’s development and infancy. Today, the latter is considered as a vital period in the development of a human being. Western culture, which Slovenia people are a part of, assumes that children need protection and special and great care. In order to be able to understand people’s attitude towards children, and with it their learning and development, they must look back onto children and childhood as perceived in the past.

Classical antiquity, for example, did understand the significance of infancy but did not dedicate enough care in relation to children. In the Middle Ages, the church emphasized the pure and innocent nature of children on the one hand, and exploited and abused children on the other hand. They believed that, infancy was a dangerous period. In Renaissance, people started to take greater care of children and in the 17th century, pedagogic viewpoints on children’s development adhered mostly to the Descartes’ mind/body dualism. Locke, Rousseau and Darwin (Horvat & Magajna, 1989) are the main founders of the 3 theoretical traditions which have marked scientific developmental psychology and pre-school education until the present day. The first focuses its theory on the influence from children’s environment, the second emphasizes the role of children’s cognitive development, and the third is mostly engaged in children’s evolution roots. With the emerging of child study movement in the 20th century, research into children’s development has become an interdisciplinary matter, laying foundations for future analyses of children and their development which is recognised in 3 major disciplines: behaviourism, psychoanalysis and cognitivism.

5.1 Behaviouristic approach

This theory is based on Locke’s viewpoint that children’s environment and experience are the basis for understanding their behaviour. Children’s development is first and foremost a result of conditioning and learning processes, and thus, depends exclusively on the environment. The personal history determines who are as people, shaped as a result of their own development. Extreme viewpoints of the supporters of behaviouristic theory (Vasta, Haith & Miller, 1995) are founded on literally “clear” theory on environmental influences, according to which, not a single personality trait, is innate and children are entirely a result of their action and the environment. Behaviourists believe that, a child learns through habituation (which is considered the simplest form of learning), classical or respondent conditioning (learning, based on unconditioned stimulus that always causes an unconditioned reaction), operant conditioning (use of consequences to modify the occurrence and form of behaviour) and discriminating learning (learning in which children adjust their responses to the stimulus) (Lepičnik V odopivec, 2006). Based on this concept, a child is on principle ready for action; his/her behaviour is based on the principle of trial and error. Bandura’s social learning theory is also considered as one of behaviouristic approaches, according to which, learning via modelling is of utmost importance in children’s development. Through researches, including children at 3-6 years of age, Bandura discovered that children observe and imitate adults from their birth on (Hayes & Orrel, 1998). That being the case, it can come to the
conclusion that behaviourists perceive the environment as a set of stimuli that determine the way of development and therewith learning and behaviour of each individual.

5.2 Psychoanalytical approach

According to Gudjons (1994), Sigmund Freud was the first theoretician who was committed to interactive view on development, according to which children’s development is a result of heredity on the one hand and the environment on the other hand. So, there is the unconscious mind hidden behind every conscious and rational thought or behaviour. Mental structures are formed in the process of cognitive and emotional interactions among parents, children and the environment. According to Freud, a child is developed through interaction with the environment, which has remained valid despite numerous critiques of his theory on children’s development. On the other hand, the theory of psychosocial development by Erikson is equally important. As Piaget before him, he too defined the development of a child/human as a transition between interdependent stages (as cited in Horvat & Magajna, 1989; Gudjons, 1994; Vasta, Haith & Miller, 1995). He distinguished 8 stages, and at each one, the individual has to reorganise his/her relation to the environment and the personal understanding of himself/herself. Reorganisation is a result of changes in each individual (maturity, new experiences) and variability of requirements of the environment towards the same individual. Erikson’s theory argues that a person’s ego is being developed across one’s whole lifespan and that every stage of life brings about a different set of problems and conflicts. This theory, placing particular emphasis on constant and lifelong development, differs considerably from the Freud’s theory. But regardless of whether it talks of Freudian psychoanalytical approach to development or Erikson’s theory of psychosocial development, the basic postulate in both cases is the assertion that infancy is an optimal phase of human learning and that childhood experience has indelible consequences for one’s entire future development. The first interactions of a child with the environment set a pattern for any future adaptations and control over primal anxieties (Čudina Obradović, 1995).

5.3 Cognitive approach

The bases of this theory date back to the 18th century. Rousseau saw the development as a series of foreseeable stages with only minimal aid of the environment (Mitzenheim, 1985). Piaget assumed that, assimilation (a new experience is interpreted on the basis of existing recognised structures) and accommodation (a sub-process that produces changes in the existing cognitive structures towards aligning them with new experience) go hand in hand. In the course of reciprocal impact of these two sub-processes, Piaget (as cited in Labinowicz, 1989) established yet another vital aspect of his theory—the concept of constructivism. He determined that, instead of a passive absorption of knowledge from their environment, children actively engage in its formation. Piaget claimed that, a child helps form the knowledge of the world rather than just taking it in and storing it. Over the past years, there has been increasing interest in researching children’s social development. A number of psychologists who research this area are convinced that both nature and level of a child’s cognitive skills influence his/her social development. A new research area, social cognition, has emerged thereby, focusing research activities predominantly on understanding social phenomena pertaining to children, such as children’s perception of themselves, their deduction regarding moral issues and alike. In order to be able to understand children’s behaviour in the first place, one first needs to know and understand the knowledge structures that a child has in a given moment and be at the same time familiar with how child’s behaviour changes with growing up. The basic principle of cognitive approach to development as well as the Kohlberg model of moral development (Vasta, Haith & Miller 1995, Kroflič, 1997) is the development of cognitive abilities of empathy, which provides the foothold for moral judgements. Supporters of social constructivism hence believe that, learning is not an isolated process which takes place inside each individual but
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rather a process that emerges through dialogue (among children as well as between children and adults), the possibility of verifying the sense of what has been learned, taking one’s personal stand in a group and the like.

Throughout the history of institutionalised pre-school education, two opposing concepts seem to have been alternating constantly, appearing on the one hand as a tendency towards a carefully planned and systematic education, and on the other hand as a tendency to enable and allow children to engage in as free, playful and care-free childhood as possible. In the background of both concepts is the question of the relation between learning and development (Kamenov, 1987; Kroflič, 2001). It is a dilemma whether teaching and learning is tailored according to the development or is it the development that is subject to teaching and learning.

6. Outline of modern teaching and learning in kindergarten

The perspective that emphasized the importance of the environment in which a pre-school child lives and of the quality and quantity of incentives he/she receives, considering that he/she is developing intensely at this stage, gained ground in pre-school pedagogy and developmental psychology only in the 1960s. As a result of scientific discoveries, speaking in favour of the respective viewpoint, the so-called compensation programmes (such as head start) started to spawn. The main goal of these programmes was to provide necessary incentives to children from socially underprivileged environments and thus diminish the difference among children entering school. Yet over the last decades, it has been increasingly more often assumed that, the role of kindergarten is not just in minding pre-school children but also in their upbringing and education. The role of kindergarten is thus not so much about correction and compensation of less favourable learning circumstances, but above all, about supplementing children’s upbringing within families as it offers a completely different set of experiences compared to kindergarten. The highly structured programmes that prevailed in the 1960s and 1970s focused mostly on preparing children to school. The educational objectives of programmes based on such concepts were normally defined through deduction of mental functions or derived from the contents of school subjects and basic notions of scientific disciplines (Špoljar, 1993). According to Hagan and Smith (1993), the main function of kindergartens was to prevent any future failures in one’s education. A typical example of a didactic-oriented programme, as quoted in literature, is the compensation programme by Bereiter and Engelmann (Lay-Dopyera, 1990). In the 1980s, experts (Kamenov, 1987; Špoljar, 1993; Bredekamp, 1996) increasingly criticised the didactic-oriented programmes, basing their arguments mostly on the highly structured nature of these programmes and suggesting they be replaced by less structured and “open” programmes, which provided more opportunities for taking into account the features, interests and wishes of each individual. Bruce (1997) and Kamenov (1987) talked of “child-oriented” and “developmentally adequate” programme (Bredekamp, 1996) or curriculum. What distinguishes different curricula is the perception of nature, knowledge and ways to acquire knowledge, which all define the base for different strategies of defining educational objectives and practice evaluation (De Vries, 1990). The prevailing strategy, which is subject to most criticism in the expert circles today, is cultural transmission which is frequently related to the behaviouristic interpretations of development and learning. In that respect, Kroflič (1997; 1999) connectd the cultural-transmission model of education with content-based and goal-based planning of instruction activities. Typical for the cultural-transmission model is behaviouristic theoretical base and thereof proceeding instrumentalism and technicism, which are frequently cloaked in a make-believe scientificity. These two imply that, it is possible to express the objectives of a certain programme in the form of desired changes of one’s behaviour and reasoning. As opposed to this, the process-development model does not set goals
in the form of desired ideal images but rather as procedural principles. The main goal of planning is to find such content and methods that will yield maximum contribution to children’s development (Kroflič, 1997).

Modern concepts of pre-school education underline the principle of active learning, which is in line with the ascertainment that a pre-school child can acquire most knowledge through active participation and specific experience. This idea was first observed in Fröbel’s kindergarten and later on in Montessori and Waldorf kindergartens (Bruce, 1997). The active learning principle was mentioned in the theory by Montessori (as cited in Loschi, 1996), which points out that a child builds his/her knowledge and personality through experience which he/she gain in his/her environment and through interaction with objects and people. This same principle is supported in a number of psychological theories of cognitive development, such as the one by Piaget or the one by Vygotsky (as cited in Thomson, 1995). Among the circumstances that influence development of one’s thinking, Piaget specified physical experience which a child gains through manipulation with the objects in his/her environment and the use of all senses (as cited in Thomson, 1995). Similarly, Vygotsky also claimed (as cited in Thomson, 1995) that children build their reasoning by taking part in activities that help them develop the latter. It is a process in which children internalise the results of their interactions with the environment.

Marentič Požarnik (2000) considered that active learning arouses a child on all levels (mentally and emotionally) and is in addition of great importance to him/her and incorporated in real-time life situations. The author further elaborated that, learning is still predominantly considered a process of piling and memorising what other people have learned. In contrast to this type of knowledge (transmission), she juxtaposed that learning is a result of numerous interactions between a teacher and children, and among children themselves (transaction). According to Marentič Požarnik, active learning also implies changes of one’s views of the world as well as transformation of one’s personality. According to the Kindergarten Curriculum (1999), active-learning principle implies ensuring an encouraging environment, which allows for following the teacher’s planned or unplanned guidelines on the one hand and observing children’s initiatives on the other hand. Developing one’s sensitivity and awareness of the issues is in the forefront of learning, next to getting children accustomed to the use of various strategies and aids in their search for answers, helping and encouraging children to use language in different functions and to use alternative means to express themselves. “Through active learning, having direct and immediate experience and deriving meaning from them through reflection, young children construct knowledge that helps them understand their world. As they follow their intentions, children invariably engage in key experiences, creative, on-going interactions with people, materials and ideas that promote children’s mental, emotional, social and physical growth” (Hohmann & Weikart, 2005). Active learning is a base for complete development of one’s abilities. Piaget claimed that, knowledge is derived neither from objects nor from a child but from the interactions between both. So it could define active learning as learning, in which a child has a certain effect on objects and interacts with certain people, ideas and events which all lead to new uncoverings and understanding. In kindergartens that promote active learning, children always have enough room to play either alone or with other children. By taking into consideration individual differences in children’s development and learning as well as the principles of an integral and balanced child development, by recognising and understanding the children’s perception and experience of the environment, by offering a wide variety of subjects, methods and forms of work, and by assuring professional autonomy of all practitioners, it can create optimal conditions for playing and learning in kindergarten. The planning must also take into account children, so one needs to respect them as unique and complete personalities, accept them as competent individuals, and consider the differences on the level of individuals as well as that of a group. In order to be able to realise the planned development process, it
is best to include children in the planning process. This provides children with their first practical experience in exploring themselves and an environment, allows for several ways of presenting their discoveries and creates a number of opportunities to use basic mathematic skills or spoken and written language.

Several authors (Tietze, Sylva & Wiltshire, Melbuish (Marjanović Umek, et al., 2002) who have been exploring this area have recognised the quality of kindergarten as an institution as one of the determinants that influence child development. Owing to differences in the way pre-school education is being organised across Europe (different working hours, difference in the number, type and duration of programmes, the age of children attending kindergarten, teachers’ level of education, goals, methods, forms of work, etc.), it cannot identify it. Yet despite the differences, it can be observed that, political and economic changes, new discoveries that regard development, learning and instruction, as well as new scientific paradigms foster changes in education in all countries, regardless of their current political or economic situation. It is thus obvious that, in most countries, institutionalised pre-school education is based on providing support to parents in raising their children, in particular due to their absence because of their jobs. Values that constitute the foundation of the European dimension in education are human and children’s rights, pluralistic democracy, tolerance, solidarity and rule of law. These values represent the basis for the organisation as well as for any programmes of pre-school education (even short ones) within it are intended for various individuals and/or members of individual groups (gypsies, talented children, children with special needs, etc.).

7. Instead of a conclusion

The view on children and infancy has been changing throughout the history and with it also the view on instruction and learning of young children. Behaviouristic theory is based on Locke’s idea that perceives environment and experiences as the basis of understanding children’s behaviour. Behaviourists believe that children learn by means of habituation (the simplest way of learning), respondent conditioning (learning, based on unconditioned stimulus that always causes an unconditioned reaction), operant conditioning (use of consequences to modify the occurrence and form of behaviour) and discriminating learning (learning in which children adjust their responses to the stimulus). Psychoanalytic approach argues that, childhood is the optimal phase of one’s learning and that experiences in our childhood bear indelible consequences for the entire future development of an individual (Čudina Obradović, 1995). It may be concluded from this that infancy is the optimum stage for learning which is why people should pay considerable attention to instruction and learning, in particular in view of the subject matter. Cognitive models of development argue that, it is the process that emerges from the interaction between children and adults and among children that is vital for a successful instruction and learning.

Modern curricula of pre-school education underline the principle of active learning which arises from the understanding that a pre-school child acquires most knowledge by virtue of concrete experiences and participation in activities. Today, this is considered a generally accepted principle of pre-school education. The idea that a child learns best from concrete experience is traced back to Fröbel’s kindergarten and is later on found in the concepts by Montessori (1990) and in Waldorf kindergartens. Recent researches, quoted by Bredekamp (1996), confirm the findings that a child learns best when subject to concrete, play-oriented approach to pre-school education.

Pre-school education is generally considered exceptional in light of a child’s actual life and treated merely as preparation to the next educational stage. Yet it should take as much advantage of each development stage, just as it is, as possible. Kindergarten education should be based on children’s abilities and lead them to acquisition of
new experiences, encounters and understanding by means of setting reasonable requests and problems that encourage children’s active learning which in turn enables expression, involvement and a strong social and emotional engagement. Experts claim that, children can develop certain notions on their own, solely on the basis of direct experiences, yet without being included in formal education, they will be able neither to learn most of sign systems nor to reach the level of abstract ones, e.g., recognising letters or numbers, reading, writing, algebra (Marjanovič Umek & Fekonja Peklaj, 2008). Therefore, the key guideline of each kindergarten should be the awareness that, each situation is an experiential moment on which a child builds his/her relationship to himself/herself, to other people and to life in general.

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