NEW PEDAGOGICAL SYSTEMS THEORY AND EARLY CHILDHOOD EDUCATION CULTURE

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ABSTRACT

This article is a study of relationships between the theories of institutional early childhood education and the early childhood education culture in Finland. Early childhood education also includes preschool education for six years old children. The theories make the context international, and it is extending from the past into the future. Culture serves as a broader context for the study.

The purpose is to show how the concept of culture has evolved in the course of time, how the concept of early childhood education is defined, how the concept of early childhood education culture is defined, where – inside the concept of early childhood education – is the place for theories and how do theories in general influence the culture of early childhood education. It will also be asked, what are the principal theories applied in the field of early childhood education, which cultural theoretical orientations are formed by the principal theories in early childhood education and what the new pedagogical systems theory of early childhood education should look like. Also, it will be discussed, why a new pedagogical systems theory should be generated and what an impact the new pedagogical systems theory and theories in general might have on early childhood education and its culture. The focus will be on the systems theory and on pedagogics.

The hypothesis is that the phenomenon of early childhood education needs an educational pedagogical theory which should especially be a new pedagogical systems theory. Content analysis is the method used in this article to reach a new understanding. This study adheres to qualitative culture research.

Key words: early childhood education, preschool, pedagogics, systems theory, systems thinking, pedagogical systems theory, culture and education, theories of early childhood education, pedagogical theories, culture research, content analysis.
INTRODUCTION

In Finland, over the past decades, many different theories have been used in institutional early childhood and preschool education. Theories have had a varying impact on the culture of early childhood education, including the foremost question of all – what is early childhood education or what even does the concept *early childhood education* mean. The position of power of theories tends to change. Even the best-known and often-applied theories lead to problems and leave questions without answers.

Härkönen (2003a) has researched the meaning of the concept early childhood education and its changes over the period of thirty years in Finland. But, before that and in addition to that the author, by doing the analysis of historically significant early childhood education theories (Härkönen 1983; 1991; 1993; 1996a), began to develop a systemic early childhood education theory. After that she made a comparison between the differences of the contemporary theories (Hytönen 2004; Vasta 2002) and the *systems theory* (Härkönen 2002; 2003a; 2003b; 2003c; 2003d; 2006), their similarities and influences on the culture of *early childhood education*. The systems character of pedagogical thinking was found in the works of history’s important pedagogues, meaning the pedagogical theories of Friedrich Froebel, Rudolf Steiner, John Dewey, Maria Montessori, Helen Parkhurst, Célestin Freinet, Vasili Sukhomlinsky, Alexander Neill, Loris Malaguzzi, Paulo Freire and others. This article is an exposition of the main results of the author’s studies of those issues.

The systems character of famous pedagogical theories has been a most interesting scientific observation made by the author. It proved to be so radical that the new pedagogical systems theory began to emerge. Already, many studies have been written on the topic and this article is one of them. Systems thinking and systems models, like figure 1, are principal issues throughout this study.

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**Figure 1. The focuses of the study as a systems model.** Härkönen Ulla 2008
This article offers one more important context for the theories and early childhood education – a cultural context. The aim is to study the impact of the theories of institutional early childhood education on the culture of early childhood education. A more pointed focus will be on the question about the new pedagogical systems theory and its impact on early childhood education culture.

Figure 1 on the previous page outlines the deliberation on education and culture, theories and education culture, the new pedagogical systems theory and the new systemic pedagogical early childhood education culture. The input comes more from the side of theories so as to study their cultural impacts.

The context proper is the Finnish early childhood education culture, but through the prism of theories the context extends to cover an international dimension while on the time axis the past and the future are included.

Figure 1 features the principal concepts and the order for following the main focuses in the arrangement by the number.

**PROBLEMS AND METHODS OF THIS STUDY**

The problems follow the focuses of the study in accordance with figure 1. The problems are the following:

1. What does the concept of systems mean?
2. How has the concept of culture and education been defined?
3. How can the concept of early childhood education be defined?
4. How can the concept of early childhood education culture be defined?
5. Where is the place of theories inside the concept of early childhood education?
6. How do theories impact on early childhood education culture?
7. What are the principal theories applied in the field of early childhood education?
8. Which cultural theoretical orientations are formed by the principal theories of early childhood education?
9. What would the new pedagogical systems theory of early childhood education be like?
10. What would the new systemic pedagogical culture of early childhood education be like?
11. Which kind of impact should theories have on systemic early childhood education and its culture?

The method employed in order to acquire new knowledge has been the text content analysis. This paper is a qualitative culture study (Alasuutari 1994, 46-64; Härkönen 1991; 1996b; 1999; 2003a; Pietilä 1976). The choice of significant early childhood education theories, the knowledge of the theory content and the choice of the criteria to analyze these theories are based on the researcher’s wide early childhood education experience, gained in the areas of practice, teaching, science and research both in Finland and abroad. The text is a meta-analysis of the earlier main studies and articles of the author, giving, in addition, new knowledge and newly produced conclusions.

In this kind of research logical reasoning, explanation, argumentation and deductions are the scientific methods applied, while moving forward through the constantly arising problems. (Niiniluoto 1983; 2002.) The question is in many cases about fitting the newly created concept systems together. While working on it, the earlier results come to be checked over and over again. If the problems occur somewhere, all the system must be checked and corrected.
In this article it is in its part question about historical philosopher-pedagogues. Cohen and Manion (1994, 46) writes, that “the historical study of an educational idea or institution can do much to help us understand how our present educational system has come about; and this kind of understanding can in turn help to establish a sound basis for further progress. Historical research in education can also show how and why educational theories and practices developed. It enables educationalists to use former practices to evaluate newer, emerging ones.” Through instruction in history of education it is possible to develop specific competencies like among others “understanding the dynamics of educational change, increased understanding of the relationship between education and the culture in which it operates, increased understanding of contemporary educational problems and also understanding the functions and limitations of historical evidence in analysing educational problems”. These thoughts are desired aims also in this article.

THE CONCEPT OF SYSTEMS

This chapter will give an insight into the systems theory as an answer to the 1st question: What does the concept of systems mean? (Figure 1.) In order to understand systems, systems theories and systems thinking are also treated first.

Systems thinking is not quite the most often applied way of thinking in education, not at least in the educational papers published in Finland. However, it is not unknown, either. The author has studied the famous philosophers and pedagogues like Johann Heinrich Pestalozzi (1746-1827), Friedrich Froebel (1782–1852), Rudolf Steiner (1861–1925), John Dewey (1859–1952), Maria Montessori (1870–1952), Helen Parkhurst (1887–1959), Célestin Freinet (1896–1966), Vasili Sukhomlinsky (1918–1970), Alexander Neill (1883–1973), Loris Malaguzzi (1920–1994), Paulo Freire (1921–1997) and others. The author has noticed already in the 1980’s – after having studied and categorized their texts carefully, many times over and over again – that they had a remarkable systems way of thinking, though they themselves had not used this kind of concept. After that observation the author also studied the systems theory itself. Even if this way of thinking is not a new idea, it can be new in new areas, like in early childhood education. It can also be created for modern meanings of education thinking.

The systems theory (Heylighen & Joslyn 1992) is one of the basic concepts of this article. “Systems theory means the transdisciplinary study of the abstract organization of phenomena, independent of their substance, type, or spatial or temporal scale of existence. It investigates both the principles common to all complex entities, and the (usually mathematical) models which can be used to describe them.” “Systems theory was proposed in the 1940’s by the biologist Ludwig von Bertalanffy.” “[He] was both reacting against reductionism and attempting to revive the unity of science. He emphasized that real systems are open to, and interact with their environments, and that they can acquire qualitatively new properties through emergence, resulting in continual evolution. Rather than reducing an entity – – to the properties of its parts or elements – – systems theory focuses on the arrangement of and relations between the parts which connect them into a whole (cf. holism). This particular organization determines a system, which is independent of the concrete substance of the elements – –. Thus, the same concepts and principles of organization underlie the different disciplines (physics, biology, technology, sociology, etc.), providing a basis for their unification. Systems concepts include: system-environment boundary, input, output, process, state, hierarchy, goal-directedness, and information.”

After Bertalanffy the developments of systems theory are diverse including conceptual foundations and different philosophical approaches. – In education theories it is needed
language, concepts, thinking etc. Are these entities systems or not?

Rapoport (1968, 452-453) says that the definition of systems should also consider the language, not only the physical systems. He writes (p. 453), that “social scientists speak of economic and political systems; philosophers, about systems of thought.” “In the larger sense, a language system may also include the referential world and even the speakers.” Parsons (1968, 458) has said that “methodologically, one must distinguish a theoretical system which is a complex of assumptions, concepts, and propositions having both logical integration and empirical reference, from an empirical system, which is a set of phenomena in the observable world that can be described and analyzed by means of a theoretical system”. In accordance with Parsons (p. 459), the human action has its subsystems, among which one is a cultural system. It comprises the language, communication, beliefs and ideas. Chang-Gen (1990, 101) divides real systems into categories like the natural systems, the social systems and the systems of thinking.

In Finland, professor Åhlberg (1995, 48) has spoken in favor of systems thinking, especially in connection with environmental problems and sustainable development: “Systemism tries to take into consideration a meaningful entity as well as substantial parts and the important relations between these parts. Systemism is a modern science- and technology-based way to approach environmental problems. Systemism includes the idea of tentativeness of all knowledge, the necessity of its continuous testing and correcting.” The role of thinking comes to the fore in the following (Åhlberg 1995, 50): “The human mind can create (in thinking) conceptual systems.”

One of the starting points here is said in the text of Gochman (1968, 489) about concepts and conceptual systems. “Concepts refer to – – the individual’s standardized evaluative predilections toward differentiated aspects of his external world. – – A concept is a system of ordering that serves as the mediating linkage between the input side (stimuli) and the output side (response).” (Gochman surely knows that there is also ‘she’, not only ‘he’, here in the external world.)

Thus, the concept of early childhood education is a system, too. It has many subsystems that have relationships with each other and the whole entity. The inter-relations between different combinations can also be tested, studied and analyzed. In all the mentioned definitions the positions of language and thoughts as a system have been given a closer look.

“Systems thinking (<http://en.wikipedia.org/wiki/Systems_thinking>) is a social approach using systems theories to create desired outcomes, or change. It is a unique approach to problem solving, in that it views certain ‘problems’ as a part of the overall system so focusing on these outcomes will only further develop the undesired element or problem. Systems thinking is a framework that is based on the belief that the component parts of a system will act differently when the systems relationships are removed and it is viewed in isolation. The only way to fully understand why a problem or element occurs and persists is to understand the part in relation to the whole. Standing in contrast to Descartes’ scientific reductionism and philosophical analysis, it proposes to view systems in a holistic manner. Consistent with systems philosophy, systems thinking concerns an understanding of a system by examining the linkages and interactions between the elements that comprise the entirety of the system. Systems thinking attempts to illustrate that events are separated by distance and time and that small catalytic events can cause large changes in complex systems. Acknowledging that an improvement in one area of a system can adversely affect another area of the system, it promotes organizational communication at all levels in order to avoid the silo effect. Systems thinking techniques may be used to study any kind of system — natural, scientific, engineered, human or conceptual.”
Finally, it can be summed up here (<http://en.wikipedia.org/wiki/Systems_thinking>) that “a system is a dynamic and complex whole, interacting as a structured functional unit. Energy, material and information flow between the different elements that compose the system.” “A holistic system is any set (group) in interdependent or temporally interacting parts. Parts are systems themselves and are composed of other parts, just as systems are generally parts or holons of other systems.” Systems and the applications of systems thinking has been grouped into three categories based on the techniques used to tackle a system. One of these groups is named “soft systems, systems that cannot easily be quantified”. “Soft systems and techniques of these systems are useful for understanding for instance different viewpoints, motivations and interactions.”

**THE CONCEPT OF CULTURE AND EDUCATION**

This chapter gives answers to the 2nd question of the study: How has the concept of culture and education been defined? (Figure 1 and 2.)

The article introduces the reader to the culture of early childhood education. Before having a closer look at that, it is necessary to ask, how the concept of culture has been defined in the course of time.

The definitions of culture mirror the different meanings of the concept of culture that have changed in the course of history. “The concept of culture is older than that of civilization, even if they are often used as synonyms.” (Spectrum Encyclopedia 1978, 145.) “Theorists such as Matthew Arnold (1822–1888) or the Leavisites regard culture as simply the result of ‘the best that has been thought and said in the world’” (<http://en.wikipedia.org/wiki/Culture>).

“The word culture is derived from the Latin verb ‘colere’ – to cultivate the land. The Romans used this concept to express the perfection of man’s moral and spiritual properties. The contents of this notion were evidently inspired by Plato’s idea of ‘paideia’, referring to the Greek educational ideal.” (Spectrum Encyclopedia 1978, 145.) ‘Paideia’ meant an upbringing, school education and support that would allow a human being truly and sincerely be one in the harmony with the innermost self (<http://chat.yle.fi/yleradio1/keskustelu/>). Jämsä (2006) says that ‘paideia’ was understood as general education, a lifelong learning taking place all the time while one is staying at home or meeting people on street and talking with them.” “It spans all life of the students through their old days.”

According to Cicero, culture (Latin ‘culta’) is an activity that is directed at, cherishes and protects that very special thing that is unique inside the human being and not known beyond (<http://chat.yle.fi/yleradio1/keskustelu/>). “Culture is a human property of activity and the fruit of this activity. Culture also means civilization, ‘the nurturing of the spirit’. It encompasses values, habits, traditions etc.” (Spectrum Encyclopedia 1978, 145.)

“The concept of culture is closely related to aspirations to ideally educate and develop an individual. These ideals of education and development are different not only in different societies, but they may differ within very similar societies as well, not forgetting that they may change as well in the course of history. For example, the epoch of Renaissance transformed the concept of culture. At that time more attention than before was paid to humanism. Yet culture retained its normative nature. Its ideals still made up a part of the aims of education.” (Spectrum Encyclopedia 1978, 145.)

“The concept of culture has during the second half of the 19th century acquired a wider meaning and lost some of its normative nature. Besides nurturing the spirit, it also refers, for example, to technology, economy and material products.” (Spectrum Encyclopedia 1978, 145.)
“The word culture has innumerable meanings and more often it is understood to apply to fine arts, then, secondly, to the matters of science and religion, but in archeology, for example, it truly pertains to all of human activity, yet in practice meaning the material traces of these activities like tools, for example.” “A more postmodern approach is revealed in the expressions like ‘business culture’ and ‘youth culture’ that in a wider sense represent a ‘subculture’, but in practice just a set of values, ways of thinking, habits etc. or even only following the fashion” (<http://www.cs.tut.fi/~jkorpela/siv/sanatk.html#kulttuuri>). Fashion means “a popular style of clothes, hair, etc. at a particular time or place or a popular way of behaving and doing an activity, etc.” (Oxford Advanced Learner’s Dictionary, 2000, 459).

“In modernistic understanding this concept covers everything that man does in order to rule nature and express oneself and one’s relations to other people. Culture is no longer neither the norm, nor the ideal, it has evolved to apply to any wholesome area of human social life, the entirety of life. The spreading of such a notion of culture is to be explained with an increased significance of the branches of science that study the human being and human societies. The impact of these studies is the reason why the modern concept of culture has gained a wider ground.” (Spectrum Encyclopedia 1978, 145.)

Culture can also be linked with human beings’ worldviews, belief systems and as a culture of symbols. “The symbolic view of culture – –, holds symbols to be both the practices of social actors and the context that gives such practices meaning. Anthony P. Cohen (1985) writes of the ‘symbolic gloss’ which allows social actors to use common symbols to communicate and understand each other while still imbuing these symbols with personal significance and meanings.” “Symbols provide the limits of cultured thought. Members of a culture rely on these symbols to frame their thoughts and expressions in intelligible terms. In short, symbols make culture possible, reproducible and readable. They are the ‘webs of significance’ in Weber’s sense that, to quote Pierre Bourdieu (1977), ‘give regularity, unity and systematicity to the practices of a group’.” (<http://en.wikipedia.org/wiki/Culture>.)

Nowadays, the vocabulary of education may quite often feature a term like the culture of education or the one denoting a more specific area — the early childhood education culture. In educational literature these terms are often used without being looked into. The reader is evidently thought to understand them through the more general words like culture and education, plus the context.

In figure 2 on the next page the different definitions and contents of the concept of culture and education in the context of culture are illustrated by the author on the basis of previous definitions.

Here also some Parsons (1968, 463) words about cultural systems can be useful. “The societal community in the present sense is articulated most directly with the cultural and political subsystems of the society.” “The cultural (or pattern-maintenance) system centers on the institutionalization of cultural value patterns, which, at the general cultural level, may be regarded as moral. Institutionalized societal values, and their specifications to societal subsystems, comprise only part of the relevance of moral values to action; moral values are also involved, through internalization, in structures of the personality and behavioral organism; and, more generally, they articulate with religion, science, and the arts within the cultural system.”

Further on in this article the author will draw a vision of the early childhood education culture with the help of a systems definition of the concept of early childhood education (Härkönen 2003a, 222) and the aforementioned notions of culture and education. At first, the definitions of the early childhood education concept shall be analyzed.
THE CONCEPT OF EARLY CHILDHOOD EDUCATION. PART 1: DEFINITIONS OF EXTENSION AND INTENSION

This chapter partly answers the 3rd question of the study: How can the concept of early childhood education be defined? (Figure 1.) This chapter Part 1 and the next two chapters Part 2 and Part 3 together answer fully the 3rd question. The pedagogical phenomenon of early childhood education is an issue that is difficult to outline. Here early childhood education will be approached through the text content analysis method, where the analyses of the concept definitions have been in the focus (Härkönen 1996b; 1999; 2003a). This makes new tools available: extension (sphere, space, application area) and intension (criteria, properties, relations, symbols, qualities) of the concept.

Alonzo Church defines the extension and the intension in the Dictionary of Philosophy: “The ‘extension’ of a concept consists of the things which fall under the concept; or, according to another definition, the ‘extension’ of a concept consists of the concepts which are subsumed under it (determine subclasses)." “The ’intension’ of a concept consists of the qualities or properties which go to make up the concept.” (Runes, ed.1972, 147–148. More definitions can be found in internet: <http://suo.ieee.org/ontology/msg02534.html>.)

The Finnish researcher Karvonen (2003) has defined the extension and the intension in a very understandable way: “The ‘extension’ or an application area. What phenomena in the
world will suit the concept or fulfill the criteria given in the intension.” “The ‘intension’ or content: the criteria or a set of signs that is held valid for a given period of time.” “People perceive the world through the prism of concepts or, in other words – through the intensions. People recognize in the world the things that conform to intensions. All that exists in the world distributes in different ways.” (Translated by the author from the Finnish text: <http://www.uta.fi/~tierka/S1syksy01eka/tsld029.htm>).

THE CONCEPT OF EARLY CHILDHOOD EDUCATION. PART 2: EXTENSIONS

This chapter partly answers the 3rd question of the study: How can the concept of early childhood education be defined? (Figure 1 and 3.) This chapter Part 2 and the previous chapter Part 1 and the next chapter Part 3 together answer fully the 3rd question.

For understanding the culture of early childhood education it is necessary, at first, to try to see what the variations in meanings of early childhood education concept are. According to Härkönen (2003a), the concept of early childhood education has four extensions or dimensions. These are presented here, while the features of culture as described before are categorized into these extensions. The purpose is to give a more precise as usual a description of the cultural saturation extent of different extensions of the early childhood education concept.

The insiders of early childhood education have defined early childhood education in their works (e.g. Brotherus, Hytönen & Krokfors 2002; Hakkarainen 2002; Hujala et al. 1998; Hujala 2002; Karila, Kinos & Virtanen 2001; Ojala 1993, 111; Takala 1984). Härkönen (2003a) has pointed out that according to the definitions used previously in Finland, the extensions or dimensions of the early childhood education are practice, subject and science. Helenius (2004) has in her inaugural address followed up this trinity nearly in the same way by using the concepts of research, [university] education and practice – (“tutkimus, koulutus, käytäntö” in Finnish).

Härkönen (2002; 2003a; 2003d; 2004a) has carried on the concept analysis studying the contents of the early childhood educational thought of the historical philosopher-pedagogues (Härkönen 1983; 1991; 1992; 1993; 1996a; 1996b; 2003b; 2003c; 2005; 2006; 2007a; 2007b; 2007c) and she discovered the fourth dimension – early childhood education thinking – and, in addition, to that – the systems nature of the entire construction as such (Chang-Gen 1990; Härkönen 2004c; Parsons 1968; Rapoport 1968). As for the philosopher-pedagogues like Froebel, Steiner and Montessori, the identity of the thought categories of their early childhood education thinking is clearly visible, while, on the other hand, the contents of these categories have received varying interpretations and meanings (Fröbel 1951; Härkönen 1983; 1993; 2003b; 2007a). The sameness of thought categories and their permanence may indicate historical evidence of these results.

As a result, Härkönen (2003a, 222) has created the new definition according to which the concept of early childhood education encompasses early childhood education practice, the early childhood education subject, the early childhood education science and early childhood education thinking, all told as a comprehensive inter-active systems model. (Figure 3 on the next page.)
THE CONCEPT OF EARLY CHILDHOOD EDUCATION. PART 3: INTENSIONS

This chapter partly answers the 3rd question of the study: How can the concept of early childhood education be defined? (Figure 1 and 4.) This chapter Part 3 and the previous two chapters Part 1 and Part 2 together answer fully the 3rd question.

Härkönen (2003a; 2004b) has stated that strictly speaking the concept of early childhood education only covers the practice of early childhood education. This is the basis for the development in culture of other extensions. Firstly, the definitions of early childhood education were confined to practice, solely (e.g. Heikkinen-Peitsoma & Rautakivi 1989, 24; Ojala 1993, 11).

It is evident that educational practice has been there before the educational subjects and sciences in mankind’s history, of course. Merlin Donald’s (1991) idea is that the human being’s intellectual evolution has gone through the events of basic culture, the imitation culture and the mythic culture to the theoretical culture from about 1.5–4 million years ago to these days. The latest period, the theoretical culture with figures, reading and writing skills, with the inner mind and knowledge processing, began about 35 000 years ago. According to that it can be said that modern science is a very recent extension of the human being’s life expressions.

The inevitable properties and features to describe the practice - the intensions of the practice of early childhood education – have been and still are in the least care, education and teaching. The principal documents (Valtionneuvoston periaattepäätös varhaiskasvatukseen vallakunnallisista linjauksista 2002; Varhaiskasvatussuunnitelman perusteet 2003) underline as the focal points of early childhood education namely these three types of activities: care, education and teaching. This way learning and development are seen as the consequences and aims of care, education and teaching. Additionally, in many textbooks the concepts of learning and development have been underlined as intensions of early childhood education.
practice. However, the authors themselves have not used the term intension (Hakkarainen 2002; Hujala 2002). These concepts of learning and development are often present when it is the question about the phenomena of developmental psychology or psychology. Nevertheless, many theories only treat a certain issue, while paying less attention to or excluding others. Siljander (2000, 17) says that “in the American education research tradition there has not been made very clear differences between different sciences, education, education psychology and psychology. The common central concept has usually been learning. But in the continental European and especially in the German tradition the pedagogical and psychological research lines are kept apart as much as possible”. Siljander comes to the result, that the psychological concept referring to a person’s learning is not sufficient to describe the tasks of education in a human being’s process of civilization. He calls for the researchers of pedagogy to find and focus again the main thoughts and problems of pedagogics. (P. 24.)

In her earlier writings Härkönen (2003a) has referred to the abovementioned three or five intensions about the early childhood education concept depending on the context in question. In the thoughts of the historically famous philosopher-pedagogues like Friedrich Froebel it can be observed that there are also the views on learning, development and even larger issues like socialization and civilization. That is a reason why in this article the author maintains that two more intensions must be added to the systems of intensions. They are socialization and civilization. In the next few paragraphs more reasons for that will be given.

The phenomena of broader socialization is sometimes related to care, education and teaching also in the literature of early childhood education (for example, conveying the customs and cultural traditions in different subject areas) (Esiopetuksen opetussuunnitelman perusteet 2000, 2000). The concept of socialization does to a certain degree come up in school and early childhood education literature, but nowadays it is rather not a principal concept. In the Finnish educational literature the civilization concept has been analyzed in relation to school education, yet rarely indeed in the field of early childhood education. The Finnish professor Kai Hakkarainen (2007) wonders if it is possible at all to speak about education without the concept of socialization. The Finnish professor Pauli Siljander (2000) recalls an old wisdom saying that the fact that the human being has the property to become civilized makes any education possible at all.

Socialization is a central concept of sociology and of sociology of education. “Socialization is an essential part of education — [but] it is disputable to argue that education could be defined to be the same as socialization.” Widely, “socialization is understood as the stages of development in the course of which the human being becomes a social being and joins the social world”. (See Puolimatka 1995, 110–111.) “In education science the concept of socialization usually means leading a human being into in the society valued cultural contents that are meant to transfer as an inheritance the next generation.” (See Puolimatka 1995, 110.) Thus, socialization is a broader concept than education and hereby the process of change of a human person is viewed from the point of view of the society. “If education is seen as socialization, open communication cannot be true and the possibility to get real knowledge, will be vanishing.” (P. 117.)

The tradition of modern pedagogical theory has most often treated education as an activity that is aimed at promoting the process of civilization of the person being educated. However, in Herbart’s theory (Siljander 2000, 27–32), “the principle of civilization is rather the bridge being built across the abyss between the ‘activities’ of the educator and the ‘process of civilization’ of the one being educated”. “The concept of civilization defines in a way the nucleus of pedagogical activity, its focus.” “Civilization’ points to the potential of a child to be civilized, moulded, and that education as such is at all possible.” Civilization is
also a “concrete educational reality and a child’s experiential feature”. “The process of civilization is not like a natural process because nature doesn’t tell what it wants to. Civilization is to be understood as the happening where the ‘radical undefinedness’ of the human person is defined through education.” “In the Herbart philosophy the fact that a human being is to be civilized will be the central concept of pedagogics.”

In this study all seven concepts – care, education, teaching, learning, development, socialization, civilization – are accepted as the intensions of the early childhood education concept (figure 4). This means that all these phenomena must exist on all the four extensions and all of these belong to the concept of early childhood education practice, subject, science and thinking. Still, this means that the phenomenon of early childhood education consists of these seven subphenomena at the same time. The four extensions and all the seven intensions form together the concept of early childhood education. It is also important to ask about the relationships of these elements.

How are the mentioned intensions related to each other? Between the early childhood education extensions there is a complex systemic relationship. In the same way, inside the extensions the relationships of intensions are systemic. The intensions are in a systemic relation to the extensions and to the whole systems as well, and vice versa. Through purposeful action and thinking it is possible to influence the changes within each part or the entire whole. (Härkönen 2003a; 2004b; 2005.)

It must be noticed that different extensions and intensions allow different philosophical and theoretical approaches to understand them, because in my view and my theory it is question about different views and conceptualization. That is why, in addition to the seven
intensions above, also the concept of *spiritualization* could be one more concept because there are philosophers in the world who have seen also this feature in human being and in education (e.g. Steiner 1979).

Figure 4 on the previous page shows the four extensions or dimensions of early childhood education. The small differently shaped figures within the extensions denote the seven intensions: care, education, teaching, learning, development, socialization and civilization. If the entire systems formed by extensions were to be given an integral shape, all the extensions should have the same practice-dictated and practice-demanded intensions and a systemic essence. How could all this possibly be related to early childhood education culture?

**THE CONCEPT OF EARLY CHILDHOOD EDUCATION CULTURE**

This chapter answers the 4th question: How can the concept of early childhood education culture be defined? (Figure 1 and 5.)

In this analysis the concept of culture and the concept of early childhood education are needed. Between them a qualitative cross tabulation analysis will be made by the author. The qualifiers of culture can be found in different definitions of culture (in the chapter of “The concept of culture and education”, and figure 2). The concept of early childhood education will be divided into four extensions and seven intensions (the previous three chapters; figures 3 and 4) in order to understand the content of this concept.

Below, the qualifiers of the culture concept (figure 2) are placed onto the four early childhood education extensions (figure 3) and at the same time – on their seven intensions (figure 4). Some broader cultural concepts can be placed onto more than one extension.

**The results:** The extension of the early childhood education practice includes, in the terms of culture (figure 2), the cultural qualifiers like the aims and the purposefulness of education (paideia, aspiration towards an educational ideal, upbringing, school education, general education, lifelong learning, harmony with the innermost self, activity that cherishes and protects the unique inside of human being, ideally educate and develop an individual, humanism, values and spiritual growth, express spiritual properties, express oneself, express moral, business, youth culture, subcultures, rule nature, cultivate the land). The early childhood education practice includes action as well (all human activity, the products of activities, material products like tools, relations to other people, the habits, the customs, the traditions, the economy; partially including the fashion (famous in fashion, to think about something). The extension of practice has connections almost with all cultural qualifiers.

The extension of early childhood education as the subject (to study) may encompass such cultural qualifiers as fine arts, sciences, religion, technology, economy, civilization, spiritual growth and archeology.

The extension of early childhood education science may encompass such cultural qualifiers as science, civilization, spiritual growth, goals of education.

The extension of early childhood education thinking may encompass such cultural qualifiers as values, moral, ways of thinking, worldview, belief systems, symbols, the best said and thought, humanism, partially including the fashion (famous in fashion, to think about something).

The cultural terms of any areas of human social life, ‘the entirety of life’, can be interpreted as reaching through all extensions and including systemic inter-relations between the various factors of life.
In this way it may be concluded (figure 5) that the culture-defined terms can be categorized between the different extensions of the early childhood education concept. It is important to notice that general cultural qualifiers can now be found in every extension.

The main result is the fact, that the *early childhood education concept represents also the general culture* in a very deep and broad meaning, because the result is the same in every extension, which means also every intension, and with the whole systems.

So, the *broader concept of early childhood education culture can more precisely be defined now as the culture of early childhood education thinking, the culture of the early childhood education science, the culture of the early childhood education subject, the culture of early childhood education practice and the culture of the whole education systems* (figure 5). Each and every extension and the entirety of systems can be researched by applying scientific methods.

It is important for the early childhood education science to record the concepts of cultural qualifiers, because many issues which may need deeper studies, stem from them: the culture of care, the culture of education, the culture of teaching, the culture of learning, the culture of developing, the culture of socialization and the culture of civilization. Also the whole systems of the concept of early childhood education culture must be mentioned. This kind of specifying proves to be important because, for instance, the concept of civilization which can be thought of as a top qualifier, is a later concept. Culture and civilization are sometimes used as synonymous, but nevertheless, culture is said to be older.

The practice of early childhood education is the foundation upon which rest all other extensions (Härkönen 2004b; 2005). Logically concluding the culture of the early childhood education practice is the basis for all other cultural extensions.
How are the mentioned cultural extensions, the intensions and the cultural qualifiers related to each other? Between the extensions of the early childhood education culture there is a complex systemic relationship. In the same way, inside the extensions the relationships of intensions are systemic. And in the same way the relationships of the cultural qualifiers are systemic. The extensions, intensions and cultural qualifiers are in a complex systemic relationship with each other and to the whole systems as well, and vice versa.

The author maintains that the system can be changed and developed further by activities and by means of thinking, applying new interpretations, meanings and using the tools of science, like research and theories.

THEORIES INSIDE THE CONCEPT OF EARLY CHILDHOOD EDUCATION

The 5th question was: Where is the place of theories inside the concept of early childhood education? (Figure 1, 3, 4 and 5.) The answers will be given in this chapter.

Already in figure 3 it was shown that one extension of the concept of early childhood education is the early childhood education science. This extension is an essential extension from the point of view of this article, because science covers concepts, hierarchies of concepts, definitions, models and theories (Niiniluoto 1983; 2002, 153-248). Thus theories are a part of the science extension system.

As it was earlier pointed out, every extensions of the early childhood education concept must include the same intensions, otherwise it is not the question about the same phenomenon in every extension (figure 4). That is why also the theories of the science extension must focus on all intensions of the early childhood education concept: care, education, teaching, learning, development, socialization and civilization. In addition, the extensions and the intensions are related with each other and with the whole education phenomenon in a systems way. It is no wonder that there is room for many different theories in explaining these phenomena. But, because the question is about the education science and a pedagogical phenomenon, therefore an accumulating and unifying educational and pedagogical theory, which focuses on the real phenomenon, is needed (also Siljander 2000, 24).

Theories by themselves are also impressions of culture, as well as of many other cultural features, for instance, of the fashion phenomena that can have an impact on the theories or at least the way of applying them into practice.

THE IMPACT OF THEORIES ON THE EARLY CHILDHOOD EDUCATION CULTURE

This chapter answers the 6th question: How do theories impact on the early childhood education culture? (Figure 1, 3, 4 and 5.)

This article is a study of the impact of theories on the early childhood education culture. According to the divisions in figures 3 and 4, theories are included in the extension of early childhood education science. Figure 5 showed the place of theories in the cultural extensions of early childhood education.

Theories have a systemic impact on other cultural extensions as well, like the cultural extension of early childhood education thinking. Theories by themselves are the products of thinking. The results of scientific thinking must satisfy the requirements of scientific criteria. This is why theories are placed within the cultural extension of science, not within the cultural extension of thinking. (Härkönen 2003a.)

Theories have a systemic impact on the cultural extension of early childhood education subject as well. For instance, Hujala et al. (1998) say that teaching must be based on
science and research. But theories have also influence on the cultural extension of practice, as Helenius (2004) and Härkönen (2003a) have reminded. Theories influence the real practical educational activity, for instance – through activators.

Theories have – inside the cultural extensions – an impact on the cultures of all the intensions: care, education, teaching, learning, development, socialization and civilization. The theories which can focus on all cultural extensions and cultural intensions and their systems at the same time are useful and irreplaceable. They have a culturally significant impact on all basic educational questions.

Theories have a systemic impact on the whole complex early childhood education concept (Härkönen 2003a; 2003b) and on corresponding culture. This in its turn has a systemic influence on the society’s broader complex cultural system. It is possible to talk about the society, where early childhood education for children is well developed, where early childhood education as a field of education with its subjects for students to study is on a high level and where early childhood education science is an independently developed discipline. The differences between societies can be big and clear (Penn 2005, 44–45).

It may be presumed that in a sophisticated society early childhood education thinking and the discussing of children’s life, care, education, learning, development, socialization and civilization pursue high ethic and moral values of responsibility and involvement. Also in Finland much remains still to be done in this field.

At a time, when the early childhood education science is undergoing rapid development, as it is the case in modern Finland, it may be confirmed that theories are the predominant factor shaping the change of early childhood education extensions, their intensions and the systemic entity as a whole, in short, shaping the change of the whole early childhood education culture.

THE PRINCIPAL THEORIES OF EARLY CHILDHOOD EDUCATION

In this chapter the 7th question will be answered. The question was: What are the principal theories applied in the field of early childhood education? (Figure 1 and 6.)

In the field of early childhood education there are quite a few different theories. The theories either come in their original form or in the shape of interpretations. Further on an analysis will be made of the early childhood education theories presently used in student education and training, specifically in the textbooks that describe the application of theories notably in the field of early childhood education. (E.g. Brotherus, Hytönen & Krofkors 2002; Hakkarainen 2002; Hujala et al. 1998; Hujala 2002; Karila, Kinos & Virtanen 2001; Ojala 1993; Takala 1984.) Härkönen (2003a) studied the mentioned references and theories while analyzing the concept of early childhood education.

As a starting point, also the other earlier published articles by the author (Härkönen 2003c; 2005) are taken into account. After those texts, in her article “Diversity of the theories on early childhood education in a democratic society” Härkönen (2006) has generated a figure that shows the pedagogical and non-pedagogical theories side by side. As non-pedagogical theories, she had picked some examples. The author has then created the mentioned figure by taking into account the more principal theories. In this article the definitions and problems of democracy, pluralism and diversity are left without any closer scrutiny. The main task in this chapter is to concentrate on what the principal theories applied in the field of early childhood education in Finland are.

About non-pedagogical theories: The years, the impact and the applicability of theories have been different. The times when certain theories have been famous have changed. In Finland, the behavioristic theories have for a long time been well known, but their golden
times were earlier, nowadays the **constructivist theories** are famous. The **didactical theories** have had a strong impact in the area of school education at least, but not so strong in early childhood education, where a wider pedagogical character is, obviously, needed. Nowadays, also didactics is pushed aside because of constructivist theories. But, at least, to a degree, didactics will be one of the main trends in Finland also in the field of early childhood education. As for the development-oriented theories, there are many and **Piaget's theory** has for a very long time been well known and respected. The time of **Vygotsky's theory** came later and nowadays it is often used. Some researchers have applied **Bronfenbrenner's theory** in early childhood education and it has been used in Finland very often for about twenty years. It is supposed that a **critical theory** is used quite seldom in the early childhood education field, but it is well suited for the purposes when sociological problems are to be solved. (Härkönen 2003c; Härkönen 2006; 2007d; 2007e.)

**Pedagogical theories**, like the ones of Friedrich Froebel, Rudolf Steiner, John Dewey, Maria Montessori, Helen Parkhurst, Célestin Freinet, Vasili Sukhomlinsky, Alexander Neill, Loris Malaguzzi and Paulo Freire, are widely known in the field of early childhood education. For longest, the best known among these has been Friedrich Froebel's theory (Salminen & Salminen 1986). Friedrich Froebel is considered to be the father of the kindergarten, and early childhood pedagogy in Finland is based on Friedrich Froebel's pedagogical ideas (Hänninen & Valli 1986; Härkönen 1983; 1991; 1992; 1993; 2007a.)
Figure 6 on the previous page represents the principal theories, applied in early childhood education in Finland, as a systems model.

The main time periods of the theories cannot be shown here, so the figure (6) does not represent any time order. The model is drawn as a systems array with an oval in the background. This means that the educators and students in real applications mix many theories together. The makers of theories have also received influences from other theories. Systems can be born as fruits of everyday thinking or emerge as the results of scientifically inspired efforts.

CULTURAL THEORETICAL ORIENTATIONS IN EARLY CHILDHOOD EDUCATION.
PART 1: THE MAIN FIELD OF SCIENCE OF EACH THEORY

This chapter is devoted to the 8th question, which was the following: Which cultural theoretical orientations are formed by the principal theories in early childhood education? (Figure 1 and 7.) Part 1, Part 2, Part 3 and Part 4 of this topic together make up the full answer to the eighth question.

In the previous chapter, the eight principal theories or theoretical entities were presented: the behavioristic theories, the didactical theories, Bronfenbrenner’s theory, Piaget’s theory, Vygotsky’s theory, the constructivist theories, the critical theories and the pedagogical theories.

Here the analysis has been made for the eight principal theories. The criteria used for theory assessment have been selected on the basis of the author’s command of the subject matter with the consideration given to the most important factors of the phenomenon of education that are mainly dealt with or dealt not in the theories. All the nine questions will be asked in the case of each theory. The first question is handled in this chapter (Part 1), the following two questions in the next chapter (Part 2) and the following six questions in the third chapter (Part 3). The main results are in the Part 4. The first criterion is formulated as a question in the following way:

1. What is the main field of science of the theory concerned?

It is considered that the field of science gives the scientific orientation and transponds its main features through its theories. The results are in figure 7. Thus, in early childhood education there are many

   a) non-pedagogical scientific theoretical orientations and also
   b) pedagogical scientific theoretical orientations (afterwards pedagogical orientations will be separated from each other). (Härkönén 2006; 2007a.)

The main fields of sciences of the principal theories in early childhood education are psychology, didactics, developmental psychology, sociology and education science or pedagogics.

In the Finnish early childhood education culture, it was noticed already at the end of the sixties, that the position of the main pedagogical theories was weakened, in the first place, by the developmental theories (Salminen & Salminen 1986, 107). This goes in line with Siljander (2000, 18), who writes that the sixties was the turning point in the field of pedagogical research as the American psychological research conquered territory from the pedagogical heritage of continental European and Northern countries.

The main fields of sciences of the principal theories are illustrated in a systems array form. It points out that there are systemic connections and interrelations between different field of sciences.
This chapter still goes on with the 8th question, which was the following: Which cultural theoretical orientations are formed by the principal theories in early childhood education? (Figure 1 and 8.) Part 1, Part 2, Part 3 and Part 4 of this topic together give the full answer to the eighth question.

In order to analyze more exactly the scientific theoretical orientations in early childhood education the next two questions will be targeted for the principal theories of early childhood education. The questions are the following:

1. What is the main focus of each theory, when the alternatives are: care, education, teaching, learning, development, socialization, civilization and the whole education system?
2. What are not the main focuses, when the alternatives are: care, education, teaching, learning, development, socialization, civilization and the whole education system?
In the earlier studies Härkönen (2005; 2006; 2007a; 2007b) has only used five concepts – care, education, teaching, learning and development – as the criteria. But because in this article the concept of early childhood education was expanded by adding the intensions of socialization and civilization, these concepts will be used as the criteria in addition to the earlier ones. Also, the systems character of the pedagogical process will be one criterion. The results of the analysis are shown in figure 8.

| Educational and pedagogical theories | focus on the pedagogical systems, including care, education, teaching, learning, development, socialization, civilization and entire pedagogical systems. |
|____________________________________|__________________________________________________________________________________________|
| The critical theory                 | points to inequality in society, being a societal theory, but how to outline care, education, teaching, learning, development, civilization and entire pedagogical systems? |
| Constructivism                      | has been generally used as a theory of learning, but how to show care, education, teaching, development, socialization, civilization and entire pedagogical systems? |
| Vygotsky’s theory                  | has been used as a developmental theory, but where is the share of care, education, teaching, learning, socialization, civilization and entire pedagogical systems? |
| Piaget’s theory                    | and has been used as a developmental theory, but where is the share of care, education, teaching, learning, socialization, civilization and entire pedagogical systems? |
| Bronfenbrenner’s ecological theory | has been used as a developmental theory, but where is the share of care, education, teaching, learning, socialization, civilization and entire pedagogical systems? |
| Didactics                           | has been used as a theory of teaching, but how to treat care, education, learning, development, socialization, civilization and entire pedagogical systems? |
| Behaviorism                         | has been used as a theory of learning, but it is subject to criticism. How to show the share of care, education, teaching, development, socialization, civilization and entire pedagogical systems? |

**Figure 8.** The main and non-main focuses of the principal theories of the cultural theoretical orientations in early childhood education culture presented as a systems model. Härkönen Ulla 2008
The results are on a very common abstract level, but the author wanted to look at the problem namely from the side of the institutional pedagogical systems. The result doesn't mean that non-pedagogical theories should not be important for early childhood education. The results show that each theory has its main focus which is important inside early childhood education.

The author is interested not only in different intensions and other elements, but in entire pedagogical systems, especially their systems character. Figure 8 shows that educational and pedagogical theories can preserve their most diverse capacity to focus on and apply to the pedagogical phenomena of early childhood education.

**CULTURAL THEORETICAL ORIENTATIONS IN EARLY CHILDHOOD EDUCATION. PART 3: EDUCATIONAL ISSUES**

This chapter will go on with the 8th question, which was the following: Which *cultural theoretical orientations* are formed by the principal theories in early childhood education? (Figure 1 and Appendices.) Part 1, Part 2, Part 3 and Part 4 of this topic together give the full answer to the eighth question.

In addition to what has been said about the theoretical orientations, the author points out the importance of connections of non-pedagogical theories to the education phenomenon. Also these theories comprise educational issues, which have connections to the pedagogical systems, like the concepts of knowledge, the teacher, the child, the teacher-child interrelationships, the motivation to learn and many other things.

Still, in addition to the earlier questions, a set of more exact questions about educational issues will be directed at the non-pedagogical theories and at the cultural orientation of the same theories:

1. What is the concept of *knowledge* in the theory?
2. What is the concept of the *teacher* in the theory?
3. What is the concept of the *child* in the theory?
4. What is the understanding of the *teacher-child interrelationship* in the theory?
5. What is the *motivation-creating* factor in the theory?
6. What else is there to consider about the theory?

On the basis of the phenomenon of education several other important criteria can be proposed, for instance, pushing off the “General systems model of early childhood education and preschool thinking” (figure 11), but the limitations have been shown previously. The results are presented as small footnotes to different theories that can be seen in appendices (p. 36–40).

**CULTURAL THEORETICAL ORIENTATIONS IN EARLY CHILDHOOD EDUCATION. PART 4: THE TITLES OF CULTURAL THEORETICAL ORIENTATIONS**

Also, this chapter will go on with the 8th question, which was the following: Which cultural theoretical orientations are formed by the principal theories in early childhood education? (Figure 1 and 9.) Part 1, Part 2, Part 3 and Part 4 of this topic together give the full answer to the eighth question.

Because, in general, theories have an impact on early childhood education and its culture, as said before, these principal theories are considered to form cultural orientations in the field of early childhood education. These are scientific and theoretical orientations.

As a summary of Part 1, Part 2 and Part 3 on the mentioned topic, the different cultural
**Theoretical orientations** are titled according to the main science and the main focus of the theory (figure 9).

![Diagram of theoretical orientations in early childhood education](image)

**THE NEW PEDAGOGICAL SYSTEMS THEORY**

This paragraph answers the 9th question: What would the new pedagogical systems theory of early childhood education be like? (Figure 1 and 10.) The uppermost subfigure of the figures 6, 7 and 8 is taken into focus now. Question is about pedagogical theories.

At first, it can be asked, what earlier theories could be used as the basis for the new pedagogical systems theory. Below, there are the results referring to the 9th problem (figure10).

The non-pedagogical theories are needed for clarifying certain psychological, development-psychological and sociological issues. But all pedagogical theories are of
principal significance in clarifying the pedagogical systems. In figure 10 there are some of the most famous pedagogical theories in Finland.

Among the most well-known philosopher-pedagogues’ theories there are the pedagogical theories of Friedrich Froebel, Rudolf Steiner, John Dewey, Maria Montessori, Helen Parkhurst, Célestin Freinet, Vasili Sukhomlinsky, Alexander Neill, Loris Malaguzzi, Paulo Freire and others, too. The arrangement of the names follows the year of death of each person (see page 4).

In figure 10 the new pedagogical systems theory is highlighted in the adhering oval background. It means that in the generation process all other pedagogical theories serve as a model in a systems way.
THE NEW SYSTEMIC PEDAGOGICAL EARLY CHILDHOOD EDUCATION CULTURE

This chapter gives answers to the 10th question: What would the new systemic pedagogical culture of early childhood education be like? (Figure 1 and 11.)

In order to find an answer the same questions are put in reference to the pedagogical theories as before to the non-pedagogical theories. The questions are the following:

1. What is the main field of science of the theory concerned?
2. What is the main focus of each theory, when the alternatives are care, education, teaching, learning, development, socialization, civilization and the whole education system?
3. What are not the main focuses, when the alternatives are care, education, teaching, learning, development, socialization, civilization and the whole education system?

Still one more extra question can be made to pedagogical theories:

4. What could the pedagogical systems model be like?

As an answer to the first question all of the mentioned (figure 10) pedagogical theories belong to the education science. These theories are broad, extending from early childhood education over to school age and further. The first parts of the theories belong to the early childhood education science. However, these theories have the features of other sciences, too. They encompass the traits of psychology, developmental psychology, social sciences and sociology, as well as philosophy. But the theories are formulated as an educational theory, usually as a pedagogical theory, which means an institutional type of education. Several pedagogues have their own theories for development. The philosophical features include the views on world, the society, the human being, knowledge and education. (Härkönen 1983; 1991; 1993; 1996a; 2003b; 2007a.)

For the second question the result is that the main focus (from the given criteria) in pedagogical theories is on entire pedagogical systems including care, education, teaching, learning, development, socialization, civilization, and the whole of pedagogical systems, at the same time.

The answer to the third question above is that these pedagogical theories focus on the same intensions and features. There are some differences on some issues, for instance, the ingredients of care get sometimes less attention, but more in some cases. (Härkönen 2003a.)

For the fourth question it can be said that from the pedagogical theories (Froebel, Steiner, Montessori etc.) it is possible to learn, for instance, the central categories, the contents of central categories, the relationships between the categories and the systems character of the whole phenomenon. These main things are similar in these theories, however, the contents have both the same and different features. The flow of educational thinking of each of these philosopher-pedagogues includes a proper theory of early childhood education that can also be modeled. By comparing the abovementioned theories and models a conclusion is inevitably drawn that there is a general systems model of educational thinking, here applied to pedagogical early childhood education thinking. This model has historical evidence. The general systems model of educational thinking has a systems nature. It means that the different parts of the whole entity are related with each other as well as with the whole entity in a systems way. (Härkönen 2003b, 31; 2004c, 37; 2006, 107; 2007a; 2007b; 2007c; Härkönen & Jämsä 2006.) This way of thinking makes possible to notice quite a lot of different variations and features in pedagogical thinking. This creates an understanding of the diversity and problematical questions of education.
On the basis of above mentioned former models, a more exact figure of that phenomenon is here in figure 11 titled by “General systems model of early childhood education and preschool thinking”. Preschool means six year olds in Finland and it belongs to early childhood education. That is why this concept can be added to the title of the model.

The new pedagogical system, when it is created on the basis of historically often known categories, which, however, differ in their contents, teach us to see the concepts and semiotic meanings of the language, texts and thoughts. This teaches us to be tolerant in regard to differences in thinking and aspire towards sustainable education. (Härkönen 2003b; 2003c; 2006; 2007c.)

“The general systems model of early childhood education and preschool thinking” could be moved onto all the four extensions and seven intensions (figure 4). After that it would be much richer situation to describe the new systemic pedagogical early childhood education culture. That problem will be left to the next study.
However, before that study, still, in addition to the earlier questions 1–4, a set of more exact questions (5–10) will be directed at the new pedagogical systems theory and its culture environment:

5. What is the concept of knowledge in the theory?
6. What is the concept of the teacher in the theory?
7. What is the concept of the child in the theory?
8. What is the understanding of the teacher-child interrelationship in the theory?
9. What is the motivation-creating factor in the theory?
10. What else is there to consider about the theory?

On the basis of the phenomenon of education several other important criteria could be proposed, for instance, pushing off the “General systems model of early childhood education and preschool thinking” (figure 11 on the previous page), but the limitations have been shown previously. The presentation of the results looks like a list, yet the author has written more about it in her previous articles (articles are mentioned at the end of each theory in brackets).

The results are presented in the following footnote in short:

The new systemic pedagogical early childhood education culture (Härkönen 2008)

- Theory-emanating branch of science: early childhood education science, early childhood pedagogy
- Focus: early childhood education, early childhood pedagogy; care, education, teaching, learning, development, socialization, civilization, the entire pedagogical systems
- Concept of knowledge: semiotic, to be interpreted
- Concept of the teacher: engaging, understanding (paradigm), systemic view
- Concept of the child: child is active, child is a system of his/her own, childhood is systemic and valued
- Concept of teacher-child interrelationship: a system of systems, points out diversity of interrelationships
- Motivation-creating factor: created by being part of systems and a systems in its own right
- What else: Theory will be systemic, pedagogical, holistic, play-centred, work-centred, activity-centred, semiotic, gender-equalizing, critical, tolerant, solutions by negotiation, taking heed of modern time challenges, sustainable education; theory is under the development.

Nowadays, in the author’s opinion, it is high time to create a new systemic cultural pedagogical approach on the basis of the earlier theories and fit them together in a new way with new ideas.
This chapter gives answers to the 11th question: Which kind of impact should theories have on systemic early childhood education and its culture? (Figure 1.) Here the main results are considered to feature the systems theory and other theories and the educational culture in early childhood education both today and in the future. The main results are the following:

The impact of theories on the early childhood education and its culture is just one of the factors influencing them. Theories – systemic and others – are of paramount importance in the cultural systems.

It can be stated that according to the analysis of the early childhood education concept there are four extensions that can be pointed out: the early childhood education practice, the early childhood education subject, the early childhood education science and the early childhood education thinking. These extensions are in a systems relationship with each other and with the whole system.

In addition to the former result, there are seven intensions of the early childhood education: care, education, teaching, learning, development, socialization and civilization. (Still the concept of spiritualization could be discussed in this relation.) The four extensions and seven intensions form together the concept of early childhood education. The intensions are in a systemic relation with each other and to the extensions and to the whole system as well, and vice versa.

When relating the definitions of culture to the different extensions of early childhood education, it becomes apparent that each extension has its own early childhood education culture. Thus, the broader concept of early childhood education culture can more precisely be divided into the four cultural extensions that are in systemic relationships with each other and with the whole. The cultural extensions are the culture of early childhood education practice, the culture of the early childhood education subject, the culture of the early childhood education science and the culture of early childhood education thinking.

Theories belong to the extension of science, but they have a systemic and cultural impact on all extensions, their intensions and the whole system. On the other hand, the general definitions of culture, in a systems way, influence the theories on different extensions.

The principal theories in the field of early childhood education have been the behavioristic theory, the didactical theory, Bronfenbrenner’s ecological theory, Piaget’s theory, Vygotsky’s theory, the constructivist theory, the socio-critical theory and the pedagogical theories. Several of these could be titled in the plural form.

Theories are analyzed more exactly in relation to the nine criteria: the theory-emanating branch of science, the focus of the theory, the non-focus of the theory, the concept of knowledge of the theory, the concept of teacher of the theory, the concept of child of the theory, the understanding of the teacher-child interrelationships in the theory, the motivation-creating factor, plus an extra point. As the criteria, in analyzing the focus and non-focus of the theory, it has been used the intensions of the concept of early childhood education that in accordance with the studies are: care, education, teaching, learning, development, socialization, civilization and the whole systems. Thus, it has been possible to create the cultural orientations that are analogous to the theories: the behavioristic learning-oriented culture of early childhood education, the didactical teaching-oriented culture of early childhood education, the Bronfenbrenner ecological development-oriented culture of early childhood education, the Piaget development-oriented culture of early childhood education, the Vygotsky development-oriented culture of early childhood education, the constructivist learning-oriented culture of early childhood education, the socio-critical culture of early childhood education and the pedagogical culture of early childhood education.
The pedagogical early childhood education theory and culture consist of many historical theories as conceived by Friedrich Froebel, Rudolf Steiner, John Dewey, Maria Montessori, Helen Parkhurst, Célestin Freinet, Vasilii Sukhomlinsky, Alexander Neill, Loris Malaguzzi and Paulo Freire.

The pedagogical theories have been focused on care, education, teaching, learning and development, but also on the whole pedagogical systems, where philosophical views, the ideas of socialization and civilization are included in these theories. The systems way of thinking can be found inside the pedagogical theories: different parts of the systems are in all-sided relationships with each other and with the whole. This can well be seen in “General systems model of early childhood education and preschool thinking” created by Härkönen (the latest model in this article, 2008: figure 11). This model could be moved onto all the four extensions and seven intensions (figure 4). After that it would be much richer situation to describe the new systemic pedagogical early childhood education culture. That problem will be left to the next study.

The theories applied in the field of early childhood education come mostly from the development psychology, psychology, but also from didactics and social sciences. In history there have been numerous pedagogical theories, but in Finland, beginning already with the 1960s, the process has continued in such a way that nowadays, for instance, the textbooks carry next to none of these theories. The reason can be more common. As Siljander (2000, 18-19) wrote, American psychological approaches have taken their part from educational sciences. However, the educational and pedagogical process urgently needs pedagogical theories.

Because “systemism” is a central concept, when we try to understand complex educational systems in a holistic manner, it is now needed to learn systems theories, systems thinking and cultural and other systems – this can create a new paradigm.

**DISCUSSION**

While handling the theories, it is important to remember that through all times, concerning all concepts, definitions and theories of education, there have always been different interpretations and trends. The qualitative research method has underlined the significance of interpretations especially while studying, for example, an individual pedagogue’s or teacher’s or students’ or who ever person’s concepts of education (Härkönen 2000; Uljens 1989).

All in all, the Finnish culture of early childhood education carries at the same time the features of all the aforementioned theories and their inter-action, their interpretations and applications in a myriad of ways, the mixture of everything. We can speak of a certain “mixed pedagogics”, a melt-down of cultures. But, compared to combinations of educational approaches in Holland, where numerous pedagogical combinations have been merged from different pedagogies, different religions and different nationalities to answer the needs of various population strata and groups (Härkönen 2001), our early education culture is a very harmonic whole.

The students claim to take the best of everything! Is this possible? Can theories or their pieces fit together, or should they? The mixing up of theories has left many different traces on practice, on the university subject for students, on the science and on the thinking extension. These impulses should be studied more closely. Research and teaching can and must clarify the mixed-up elements.

In the presentations and implementations of theories it would be useful, for instance, in the students’ learning process, to understand the theory-emanating branch of science, its
focus, the non-focus, and their applicability in order to outline the phenomena of care, education, teaching, learning, development, socialization and civilization. The concepts, the concept systems, the definitions, the phenomena and their limits and the methods of the research are substantial in learning process.

Early childhood education is already a science in itself, but the author is of the opinion that the early childhood education science still needs to be developed further and a new theory with a new paradigm must be created. It could be an early childhood theory that would - in compliance with the challenges of time and the future – be systemic, pedagogical, holistic, play-centred, work-centred, activity-centred, semiotic, gender-equalizing, critical and tolerant. It would take heed of modern time challenges, in problem solving it would adhere to negotiation and it would represent and develop sustainable education (Arendt 2002, 308; Härkönen 2006; Härkönen & Jämsä 2006; Kanpol 1999, 27; Peters & Purbules 2004, 90). The author maintains that a broad and distinct pedagogical theory expands the diversity of the culture of early childhood education (Härkönen 2006) that generates universality, new interpretations and promotes sustainable development of the culture of early childhood education.

The years will change in the texts. The books rely on terms like ‘earlier – in the future’, ‘old – new’, ‘traditional – modern’ (e.g. Hujala et al. 1998; Hujala 2002). In the discourse, the opposing pairs are often put into a contrasting light and the text seems to be rewarding a certain choice.

The pedagogical theory is directed towards the main focus of early childhood education: care, education and teaching. It treats learning, development, socialization and civilization, and each of them both as a starting point and the result and the aim. The author believes that the systemic, holistic, and semiotic way of thinking (Härkönen & Jämsä 2006) will sooner or later lead to a situation where both all existing and new theories will be understood as the mankind’s creative interpretations. New theories are needed, but the old ones retain their significance and importance. Nevertheless, Helenius (2004) has said, also the forgotten but yet necessary facts should be brought back to daylight again.

The transformation of the main concepts in the Finnish culture of early childhood education has been a slow process, it has nevertheless been taking place in time, stimulated by trends and fashion, possibly (Härkönen 2003a). According to the definitions of culture, fashion is a cultural phenomenon as well.

Thus, the pedagogical theory will give the educators an insight into the pedagogical process while strengthening the educator’s position that may have been blurred up a bit by contradictory signals of different theories.
REFERENCES


All the cultural theoretical orientations analyzed here have been and nowadays are well known in early childhood student education in Finland. These theories often form the central content of important textbooks in the field of early childhood education and preschool. It has been pointed out in this article, that theories are a part of science and influence the entire extensions of early childhood education. In this case the impact of theories reaches practice, subject, science, thinking and the whole systems of early childhood education. It has also been said above that theories influence the formation of culture in each extension and intentions and at the same time the culture of the entire systems of early childhood education.

The following eight paragraphs are each devoted to a separate theory. Each theory’s cultural orientation is titled according to the main focus of the branch of science that the theory adheres to. The criteria, used here, are the following: care, education, teaching, learning, development, socialization, civilization and the whole system. They are the intensions of the extensions of the concept early childhood education.

Results are based on nine questions that were formulated in the previous article. The theory’s branch of science, the focus and the non-focus, were already presented before. These results show how the theory treats some educational issues of early childhood education chosen by the author for the analysis.

The educational issues are the following: knowledge, teacher, child, teacher-child interrelationship, motivation-creating factor, what else. These were presented in the previous article, too.

### Eight Cultural Theoretical Orientations: Footnotes

In this chapter eight central theories, well known in the field of early childhood education, are analyzed by applying the nine criteria presented before. This analysis goes a bit further from the knowledge in the figure 8. The main aim is to show that there might be some need to know also the pedagogical theories. The new systems pedagogical theory could connect the main pedagogical phenomena and theories in a systemic way.

1. The behavioristic learning-oriented culture of early childhood education

- Theory-emanating branch of science: psychology
- Focus: functions of the psyche, including learning
- Not in focus: the role of care, education, teaching and development, and the whole systems
- Concept of knowledge: objective, absolute knowledge
- Concept of the teacher: teacher in the lead; the adult rewards and punishes
- Concept of the child: the passive recipient, learning by memorising
- Concept of teacher-child interrelationship: adult is authority, the child is submissive
- Motivation-creating factor: created by rewarding, getting a reward
- What else: the culture of education includes also different interpretations from behaviorism
2. The didactical teaching-oriented culture of early childhood education

- Theory-emanating branch of science: didactics
- Focus: teaching
- Not in focus: the role of care, education, development and learning, and the whole systems
- Concept of knowledge: objective knowledge, split into compartments of knowledge or subjects or areas of contents or content-orientations
- Concept of the teacher: teacher in the lead; adult responsibility
- Concept of the child: ranging from passive recipient to active purposeful learner
- Concept of teacher-child interrelationship: the adult teaches and the student is an active learner
- Motivation-creating factor: created by reaching for the goals of learning
- What else: The culture of education also includes different interpretations of didactics. Didactics has been compared to behaviorism but didactics can with other theories acquire different forms.
  - Germeten (2006) wrote that “there are many different theories of didactics and they are very different. Some are goal-oriented, some are holistic and some are curriculum studies”. I think, that, however, they all concern school teaching in a broader meaning. (Brotherus, Hytönen & Krokfors 2002; Härkönen 2003c; 2005; 2006; Rinne, Kivirauma & Lehtinen 2000)

3. The Bronfenbrenner ecological development-oriented culture of early childhood education

- Theory-emanating branch of science: developmental psychology
- Focus: development
- Not in focus: the role of care, education, teaching and learning, and the whole systems
- Concept of knowledge: knowledge can be found in the ecological environments and can be treated subjectively
- Concept of the teacher: this is not an educational theory, not a teaching theory
- Concept of the child: in the certain ecological environments the child is an active player but not everywhere
- Concept of teacher-child interrelationship: the roles, actions and relationships in inter-action between the members of micro-systems, and inter-action between the micro-systems (= meso-systems), and inter-action with exo- and macro-systems
- Motivation-creating factor: created by encountering new systems, transfers
- What else: understood in Finland mostly in a simplified way, dropping from the general picture such systems where the child, e.g., is not an actor. Bronfenbrenner himself has criticized his own theory saying that the theory has not produced a scientific discovery, meaning that it has not been capable of answering the question as to what is the f-factor or what is the process that an individual and the environments must generate. Education belongs to f-factor. It remains open as to what education is. There is no answer in this theory, says Bronfenbrenner (1989) himself.
4. The Piaget development-oriented culture of early childhood education

- Theory-emanating branch of science: developmental psychology
- Focus: development
- Not in focus: the role of care, education, teaching and learning, and the whole systems
- Concept of knowledge: subjective, not objective
- Concept of the teacher: the specialist and the supporter of child development
- Concept of the child: a child assimilates, accommodates, self-regulates and constructs knowledge in a personal way
- Concept of teacher-child interrelationship: the child is an individual, in this theory no specific stress is put on teaching
- Motivation-creating factor: the environmental factor that helps to assimilate, accommodate and construct knowledge
- What else: the culture of education also includes different interpretations of the Piaget’s theory, that vary from putting stress on the individual or putting stress on the social


5. The Vygotsky development-oriented culture of early childhood education

- Theory-emanating branch of science: developmental psychology
- Focus: development
- Not in focus: the role of care, education and teaching, and the whole systems
- Concept of knowledge: knowledge has social and cultural origins
- Concept of the teacher: the teacher acts on the zone of proximal development of the child
- Concept of the child: a child develops and learns in functional inter-action with adults and the socio-cultural environment
- Concept of teacher-child interrelationship: adult’s teaching precedes learning and development, not only follows them
- Motivation-creating factor: created by acting as an active member of cultural surroundings
- What else: are there in Finland in the culture of education different approaches to Vygotsky’s teachings?


6. The constructivist learning-oriented culture of early childhood education

- Theory-emanating branch of science: psychology, including the psychology of learning
- Focus: functions of the psyche, including learning
- Not in focus: the role of care, education, teaching and development, the whole systems
- Concept of knowledge: subjective, also social and historical, non-absolute knowledge
- Concept of the teacher: adult as the builder of learning environment, the helper in learning
- Concept of the child: the active constructor of knowledge, external knowledge being transferred to the mind through social situations and cultural tools
7. The socio-critical culture of early childhood education

- Theory-emanating branch of science: social sciences, sociology
- Focus: the society, inter-action of man and society, socialization
- Not in focus: the role of care, education, teaching, development and learning, and the whole systems
- Concept of knowledge: consciousness is important, emancipation or liberation from wrong knowledge
- Concept of the teacher: realizing and engaging, socially critical, educating for consciousness and emancipation and dialogue
- Concept of the child: active, can be critical
- Concept of teacher-child interrelationship: the child is seen as an observant, feeling person aspiring for justice and fairness
- Motivation-creating factor: created by moving towards changing
- What else: This theory is not known well. If it is familiar at all, then it is used as a wider reference framework in research. The theory may be dependant on the general atmosphere of time. This theory may help to understand socialization.

8. The Froebelian pedagogical culture of early childhood education – as an example of pedagogical culture

- Theory-emanating branch of science: pedagogics
- Focus: care, education, teaching, learning, development, socialization and civilization, the whole systems
- Not in focus: -
- Concept of knowledge: child finds and constructs knowledge by acting in different ways
- Concept of the teacher: nurse, educator, teacher, pedagogue and like a good gardener who cultivates a very young plant
- Concept of the child: a child learn to take care of himself / herself, a child is playing, working and active human being, he / she has natural instincts that can be educated
- Concept of teacher-child interrelationship: the child is an individual and also a social human being
- Motivation-creating factor: the specific Froebel materials and kindergarten environmental factors make children active and learning
- What else: There are both free actives and teacher-centred teaching and every
variations between them in this pedagogy. Froebel-materials are world-famous also nowadays. They hold the interest on Froebel pedagogy, too.


NOTE! In the book that I just gave from Turkey (The Alternative Education Group 2007, 30–31) there is a grouping of many theories in the area of early childhood education: Models and Features of Alternative Education. Groups are the following: 1) Freedom based learning, 2) Social constructivism model, 3) Critical pedagogy, 4) Spiritual developmentalism and 5) Holistic (integral) education. – This categorization has not been made between pedagogical and other theories. The criteria have been different than in my work, but however, there can be seen many similar thoughts and also some different and other approaches than in this article. The concept “spiritual” can be found here.