DEFINING EARLY CHILDHOOD EDUCATION THROUGH SYSTEMS THEORY

Ulla Härkönen
University of Joensuu, Finland
Ulla.Harkonen@joensuu.fi

Abstract

We researchers say that we study early childhood education. What do we actually study? Hereby I now focus on the concept of early childhood education. Concept analysis produces new information on the phenomenon that we the researchers of early childhood education and lecturers love so much. But what do we actually love?

In this article I will analyze the concept of early childhood education and propose a new systems theory based definition of early childhood education.

For reference I will use a few Finnish early childhood education textbooks and articles with different definitions of the concept of early childhood education. The authors are Finnish early childhood education experts. Their views are based on the international theoretical cornerstones.

This article is based on my scientific research (Härkönen, 2002a). Methodologically I have advanced by presenting exact quotations from their texts and have processed their early childhood education concepts into models (Checkland, 1981; Jämsä, 2002; Syrjälä, Ahonen, Syrjäläinen & Saari, 1996). After that I have pointed out the more important characteristics of changes of the early childhood education concept and mentioned the aspects that still remain questionable. In this article I am summarising up the results of my research and presenting a systems theory model of the concept of early childhood education.

The definitions and the models tell us about the changes taken place last thirty years and the impact of different theories. It seems, however, that the content of the early childhood education concept has not acquired a clearly outlined meaning.

In my article I will define a new early childhood education concept. It is based on the systems theory I found in the studies of educational thinking of great philosophers/pedagogues. Early childhood education thinking forms a new part-system of the system entity, consisting of early childhood education practice, early childhood education as a science and early childhood education as a subject (for teaching). In my models I will define the content of each subsystem. Besides, preschool is treated as a part of early childhood education.

I believe that this kind of concept analysis performed within a framework of one country would have a wider significance for the international community of scientists.

Key words: early childhood education, systems theory, science, subject, early childhood education thinking.

Early childhood education as a science and practice

In Finland one of the earliest references to the definition of early childhood education was evidently made by our first early childhood education professor Mikko Ojala (1978a, 308-313) in his article ´Early Childhood Education as a Science´. The article focuses on early childhood education as a science and practical activity.

According to Ojala (1978a, 311), in Finland, at the end of the 1970s, the theory of early childhood education was just emerging. He asked, whether it was possible to design one single theory or was there a need for several ones. Ojala concluded that one theory will suffice, but he pointed out that this theory should be constantly assessed and developed further. This theory should first of all be a pedagogical theory. In his book (1978b) Ojala writes that early childhood education as a science studies the process of education before the school age.

Ojala (1978a, 308) maintained that early childhood education is also a practice, it is a form the concept of early childhood education is best of all known.

Early childhood education is an activity that takes place before the school age. In this case preschool is a part of early childhood education. The aim of early childhood education is a versatile development of child´s personality. Besides education and teaching, early childhood education also includes a basic care. Early childhood education should help a child to be ready and mature for a smooth transfer to school. Ojala (1978a, 312) underlines that in education the theory should serve the practice and practice should serve the theory.

On the basis of the aforementioned definitions of early childhood education, I have formulated (Härkönen, 2002a) a two dimensional model of the concept of early childhood education and a two dimensional model of the concept of preschool.

Early childhood education as a practice

The abovementioned first Finnish early childhood education Professor Mikko Ojala has written an early childhood education textbook (Ojala, 1985) that was later reprinted (Ojala, 1993). In these books Ojala (1985, 14; 1993, 14) defines early childhood education as an inter-active process in the sphere of life at home, day care and preschool that is purposefully aimed at an all-encompassing personality development of between the age from 0 to 6 years. Care, education and teaching in early childhood education are integrated into one functional entity.

Though Ojala in his books concentrates on developing the theory of early childhood education, in his definition he treats the early childhood education only as a practice. In this definition preschool belongs to early childhood education too.

The issues, mentioned above, I have processed into the one dimensional model of the concept of early childhood education and the one dimensional model of the concept of preschool (Härkönen, 2002a).

It is interesting to notice that at the end of the seventies Ojala (1978a; 1979b) clearly spoke of early childhood education as a practice and science, but in the eighties, at least in reference to his definition quoted in my study, he speaks of early childhood education only as a practice, even though he himself has devoted much attention to the scientific dimension of the concept.

Early childhood education as a science, practice and a subject

The Finnish pedagogical literature of the eighties treats as well the issues of early childhood education. Among others there are such well-known researches as Lahdes (1984), Takala (1984) and, specifically in the field of early childhood education, Huttunen (1988). In their studies from the end of the nineties Hujala (1998) and others refer to the abovementioned books and state that early childhood education has traditionally been approached on a three dimensional basis of practice, subject and research area.

The definition just mentioned does not specify early childhood education as a science, but notably as a research area. The concept of a subject is clear in itself. But the definition does clearly enough point out the contents of practice. Since it is the issue of traditionality, I perceive it to cover care, education and teaching as in earlier definitions. The text written by Hujala and others (1998) does not reveal the interrelationships of the three dimensions of the early childhood education concept. But since the authors criticise a certain looseness inherent to the traditional tri-partite division, I will now represent these dimensions detached from each other. According to Hujala and others (1998, 1) preschool is perceived as a part of early childhood education.

In my study (Härkönen, 2002a) I have formulated the traditional three dimensional model of the concept of early childhood education and the traditional three dimensional model of the concept of preschool.

At the end of the nineties Hujala and others (1998,1) had themselves proposed a definition of early childhood education that they called ´modern´. From the point of view of modern and scientific early childhood education the traditional tri-partite division was no longer valid, they insisted. Early childhood education as a subject and an area of teaching can not be separated from scientific research, they all form one whole. The development of the subject and academic education should be based on scientific research.

In their definition the authors did not specify their attitude towards practice, but an analysis of the whole book clarifies that there is an early childhood education practice that in its turn includes basic care and education. The concept of teaching has come to be replaced by the concept of learning. Preschool is still a part of early childhood education.

I have processed the abovementioned into the modern three dimensional model of the concept of early childhood education and the modern three dimensional model of the concept of preschool (Härkönen, 2002a).

At the turn of the millennium a newer version of the modern interpretation of the three dimensions of early childhood education has appeared. Karila, Kinos & Virtanen (2001, 16) in their book shortly mention that there is a tri-partite division in early childhood education: practice, subject and field of research and science. The authors speak of “academic early childhood education”, when referring to early childhood education as a part of pedagogics. The concept of a subject is clear in itself. What comes to the contents of early childhood education as practice is not quite easy to perceive. It is a problematic presentation, because the book is a compilation of articles. This makes it necessary to study the whole book. It does mention basic care, inter-action between development, growing up and education, as well as inter-action between learning and teaching. The issue of preschool is not separately studied in this book. However, the book refers to early childhood education as an education for children under school age and a progressing field of science studying it. In modelling I have derived preschool directly from the corresponding early childhood education definition, placing it as a part of early childhood education.

The abovementioned aspects I have presented as the newest three dimensional model of the concept of early childhood education and the newest three dimensional model of the concept of preschool (Härkönen, 2002a).

A kind of description of the three dimensions of early childhood education is also given by Brotherus, Hytönen and Krokfors (1999), even though it is confined to preschool age children and thus to preschool. At times the book handles preschool in relation to early childhood education, at other times – in relation to primary education. Pedagogics, applied pedagogics and didactics as a science are treated as the scientific starting lines for preschool. Especially an age period didactics are scrutinized in relation to the science of didactics. The book also refers to preschool as an administrative term. The administrative factor brings about a fourth dimension of the concept of early childhood education. The contents of preschool are looked at in the context of teacher training. The book sees preschool, first and foremost, as a practice, didactic activity, didactic practice. Preschool clearly includes a care, education and teaching, studying and learning. In this connection the term ´studying` is new for preschool.

These developments I have elaborated into the didactic model of the concept of preschool (Härkönen, 2002a).

The latest definition of early childhood education in Finland was brought force by Hakkarainen (2002) in his book “Developing Preschool” (in Finnish). As the title hints, the study is devoted to preschool only, as a part of early childhood education. Hakkarainen builds on, among other things, the Vygotsky´s theory of the proximal

zone of development and the significance of an adult´s guidance. A preschool age child is on the verge between the play and reality: learning is based on playing and the interest to inquire. Learning tasks should be planned with these principles in mind, then learning will mean development for a child. Hakkarainen´s (2002) book does not allow to shape the models of early childhood education or preschool concepts along the lines possible on the basis of definitions from the earlier mentioned books. I have though worked out a corresponding model in accordance with the inner principles of the developing preschool (Härkönen, 2002a). Hakkarainen (2002) has departed rather from child developmental psychology than from pedagogics. He does speak of didactics, but this too is clothed into the cape of developing child developmental psychology. His scientific approach resembles a mixture of child developmental psychology and pedagogics, or, rather – didactics. The book describes also the practice of preschool, so it could be used as a course book in teacher training, for example.

The three dimensions and their different combinations

As a result of the analysis three dimensions of the concept of early childhood education have been found. They are a practice, science and subject. They are used in different forms of combinations in the texts.

In all the aforementioned definitions of early childhood education the concept of early childhood education has in one sense meant a practice. The concept of **´practice´** in itself seems to be clear enough, but its contents vary in different definitions. At first, practice covered care, education and teaching. Then there was a tendency to stress the inter-action type character of relations between adults and children in care, education and teaching. The concept of teaching has become the concept of learning. In the latest definition the practice of early childhood education is described by using the words care, development and growing up in inter-action with education, at the same time learning is seen as being in inter-action relation to teaching.

According to these definitions care has been preserved in early childhood education practice, though often referred to as a basic care. Many texts do not ponder over these concepts. Yet the analysis of the concepts of care and basic care would open up extremely important pedagogical horizons, because the contents of these concepts may partially differ. The concept of education has been flanked by the concepts of development and growing up. The concept of teaching is sided by the concept of learning. There is a tendency to look at the phenomenon of early childhood education practice not only from the point of view of a nurse, an educator and a teacher, but ever more from the point of view of the one being taken care of, being educated and being taught. While outlining the point of view more precisely it has gradually shifted closer and closer to the child.

In the case of early childhood education practice attention is also drawn to the inter-active character of education. Usually this means inter-action between adults and children. This brings along the process character of the phenomenon under observation and the wholeness of the phenomenon comprising several parts. The texts may well refer to ´wholesomeness´, but it has not been further elaborated theoretically. In pedagogical literature, though, it is possible to find references to the inter-activity of care, education and teaching. This type of approach would be valuable for the development of systems theory education thinking.

In all but one of the early childhood education definitions mentioned here the early childhood education concepts have for one thing included the notion of science. The concept of **´science´** in itself seems clear, but it contents vary in different definitions. In the beginning there is the expression “early childhood education as a

science that includes theory and research´, then ´early childhood education as a research area" and then "scientific early childhood education, including research". Finally the academic character of early childhood education is underlined, stating in this way that the issue in question is "academic early childhood education, including early childhood education as a science and a field of research".

The scientific dimension of early childhood education is well recognised in early childhood education definitions, but the conceptual expression varies greatly. The concepts of science, research, field of science, field of research and academicity are often vague and misty. The concept of ´field´ is rather implicit. One may ask, what does this refer to?

Early childhood education as a subject in itself is clear, but it is absent from certain early childhood education definitions. The ´**subject**´ dimension was developed in the eighties. In the texts there are expressions like "early childhood education as a subject" and "early childhood education as a subject and a field of teaching". The concept of ´field´ is prone to interpretations as to what does it refer to.

It may be said that over the period of thirty years the early childhood education definitions carried by Finnish early childhood education textbooks specify the following three dimensions of the concept of early childhood education: practice, science and subject. In the early childhood education definitions they appear in different combinations of one, two or three meaningful dimensions. At first the concept of early childhood education had two dimensions namely science and practice. Then it had only one dimension - practice. Finally it obtained three meaningful dimensions: practice, science and subject. All the time there have been changes in the details of meaning.

The problems related to defining an early childhood education

There has been a need to define the concept of early childhood education again and again. The concept of early childhood education has continuously acquired new facets of meaning. Social policy acts on day care, educational policy acts concerning early childhood education and the changes in educational standards together with changes in theoretical and philosophical approaches to children, education, learning and knowledge have in their turn had an impact, making the implications of the concept of early childhood more diversified.

An analysis of the concept of early childhood education shows that the meaningful content of the concept has always been an issue and the new definitions have failed to bring about final clarity. From the point of view of science and research it would be, though, important to know, what is the phenomenon and its corresponding concept. If it is not known exactly, what the concept of early childhood education covers all in all, then the object of research will remain obscure.

So, somewhere is still a weak point, but where? There is the question of inter-action between different things: how do practice, a subject and a science influence each other. An issue constantly raised in teacher training, for example, concerns "the eternal contradiction between practice and theory". The vague concept definitions in their part maintain this confusion.

Lately attention has been focused on interpretations and concept systems. What does all that mean and how are they related to the aforementioned categories? What do the great philosophers/pedagogues can teach us about early childhood education, as we read their works?

The problems mentioned here can be attributed to the concept of preschool as well. The interpretations, concept systems and thinking are also closely connected to preschool.

The fourth dimension of early childhood education

My new and main opinion is that there is a certain dimension, belonging to the concept of early childhood education that has never before been included into the definition of early childhood education. I think that the fourth dimension is *early childhood education thinking* (Härkönen, 2002a) (Fig.1). It covers the ideas about early childhood education, knowledge, opinions, visions and observations. They can be intellectual or estimational. Meaningful notions can be exposed in arguments, questions, prohibitions, orders, references, attitudes of faith or doubt, positions, descriptions, interpretations, stories etc., having something to do with early childhood education. Meanings are complemented with interpretations. (See e.g. Checkland 1981; Härkönen 1996; Karjalainen & Siljander 1993; Marton 1981; Oevermann and others 1979; Oevermann and others 1983; Uljens 1989; Vygotski 1982).

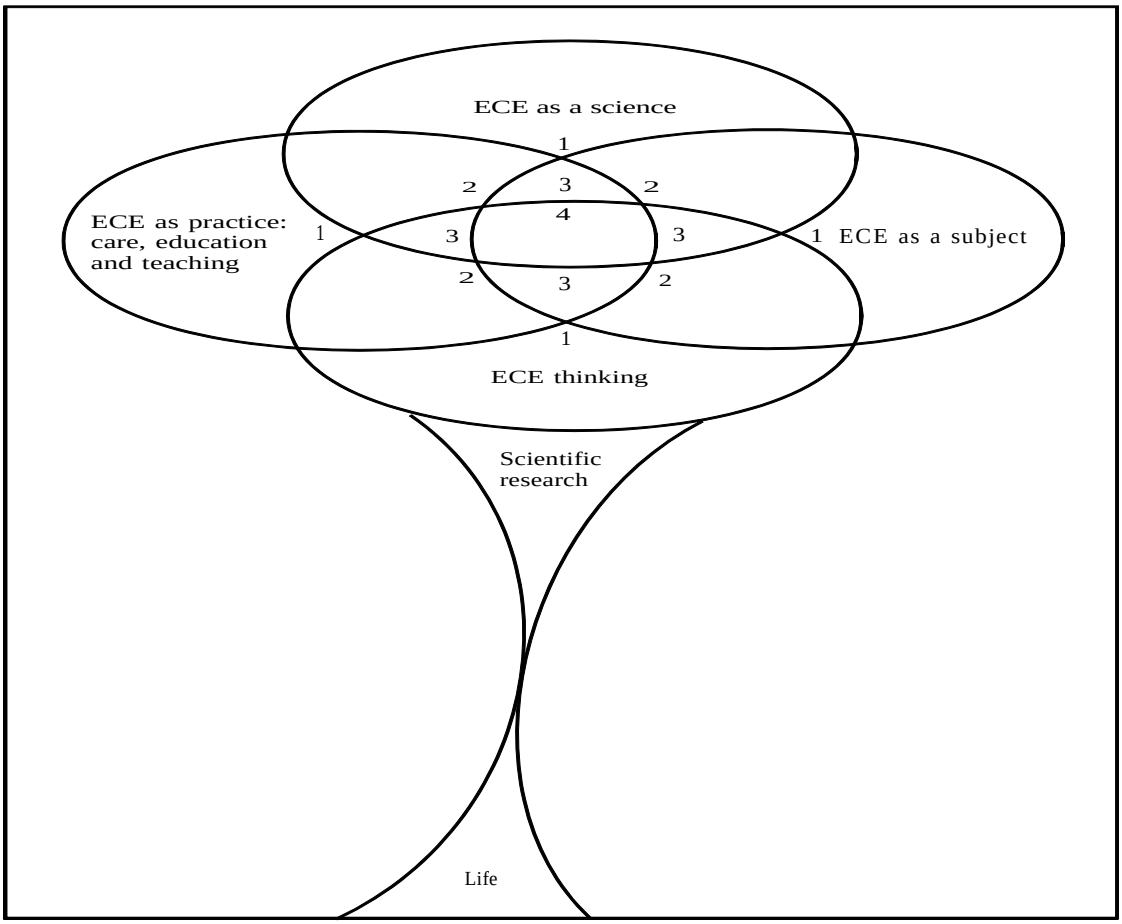

Figure 1. *Systems theory four dimensional model of the concept of early childhood education (ECE).*

Early childhood education thinking is not only an educational philosophy, as one might often think. Here it is a view that a person thinks while working and caring of practical things, one thinks while taking care of a child or children, educating and teaching them. A researcher thinks while researching, a subject planner and the one putting it into practice think while engaged in their work. Beside that a human can think without an implementation of these thoughts in practice. Therefore anybody can think about early childhood education and its dimensions and produce or cause different cultural implications.

The great philosophers/pedagogues have created the new early childhood education pedagogies. The great personalities who have had a very strong influence on early childhood education are Friedrich Fröbel, Maria Montessori, Rudolf Steiner, Célestin Freinet, Paolo Freire, Alexander Sutherland Neill, John Dewey, Helen Parkhurst, Vasili Sukhomlinski and many others. Either personally or through somebody else´s intermediary they have communicated their pedagogical thinking to the posteriority. It covers philosophy, but also pedagogical thinking, based on philosophy. It is therefore possible to create on this basis real kindergartens and schools, where nurses, educators and teachers in their practical work in their turn think, while planning, putting into practice and evaluating education. Thinking work has been done and is still done by babies, little children, pupils, parents and all people, having something to say about a phenomenon called early childhood education. The content of thinking of both philosophers/pedagogues (Härkönen, 1983; 1991; 1993) as well as any other person may be the object of scientific research.

The product of thinking is transmitted further in time. By thinking a person can create something new. By its inner significance thinking comes before practice. Planning and scientific activity open up new horizons in the process of developing early childhood education. Early childhood thinking is an extremely significant dimension of early childhood education. Thinking is a human property in all doing.

Everything said so far concerns also preschool as a part of early childhood education (Härkönen, 2002a).

The systems theory model of the concept of early childhood education and its application

The starting point here is Gochman´s (1968, 489) opinion that each and every concept is a system. Thus, the concept of early childhood education is a system. In this article the four dimensions of the early childhood education concept have been specified: practice, subject, science and thinking. All the four dimensions are also systems concepts. In relation to the early childhood education system they are its part-systems. Part-systems are inter-active between themselves and as a whole. Part-systems form combinations of one, two, three or four factors. The numerous inter-relations between different combinations can also be analysed.

Scientific research can separately be directed at whatever part-system and, naturally, to their sub-systems, revealing the character of part-systems. Scientific research can be extended to the combinations, formed by part-systems, linkages between them, entities, parts and infinite number of different forms of combinations and relations between them.

I have formulated the systems theory four dimensional model of the concept of early childhood education. The very same principles can be detected while formulating the concept of preschool as a part of early childhood education (Härkönen, 2002a).

Scientific research of early childhood education is a necessary and demanding task. It is also necessary to study the practice of early childhood education by observing it or participating in it. It should be equally important to study early childhood education as a subject, even though this has been done not so often. Now we understand that early childhood education thinking can be an object of scientific research. Early childhood education thinking is in ample ways related to practice, a science and subject, to each of them, their combinations or the whole. This kind of research has been quite popular lately. There has been a striving towards studying teachers´, parents´ and children´s understanding of different educational phenomena.

The systems theory four dimensional model of the concept of early childhood education can be used to outline the research of different other things, related to early

childhood education. One of such things both in practice and in teacher training is the study of curricula. In my paper I have described the systems theory type relation between an early childhood education curriculum and the four dimensional early childhood education concept. A similar setting takes shape from a preschool curriculum. Another example of the application of systems theory model of early childhood education is the relation of the early childhood education administration and the preschool administration to the areas, referred to in the concept of early childhood education and the preschool concept. This in its turn creates premises for the studies of leadership (Härkönen, 2002a.).

The system theory based modelling exposes with a great degree of accuracy the substance of concepts and the different relations between various concepts. This allows the intellectual precisity outlining the phenomena and facilitating the activities purposeful for science.

The systems theory definition of early childhood education

In the light of my studies (Härkönen, 2002a) I define early childhood education through the analysis of the concept of early childhood education in the following way: early childhood education means early childhood practice, early childhood education science, early childhood education subject and early childhood thinking as a wholesome system.

The above part-systems provoke another question: in what order would it be appropriate to mention them. As an alternative to what has already been proposed, here is another variation I put forward to give a thought to: the concept of early childhood education means early childhood education thinking, early childhood education practice, early childhood education subject and early childhood education science as a system.

As a researcher I study early childhood education, well, what is being researched? Research is then directed at the systems theory early childhood education entity as outlined by the early childhood education concept, its systems parts or combination systems, built by whatever numerous parts or wholes. This definition suggests a view that it is possible to research a phenomenon or an apprehension of a phenomenon. Finally it should be said that all the phenomena under research are placed within a certain context. In my research I have acquitted this with the term ´life´.

Discourse

Concept analysis is an awesome enterprise. However, it is necessary for the development of science, practice, the teaching subject and thinking. Hirsjärvi and Huttunen (1995, 90) are of the opinion that basic concepts should be rather outlined through concept analysis than empiric studies. Winch (1979, 24), while pondering about what makes behaviour social, concludes that “in issues of this kind there should not be even a hint to ´let us wait until we see´, what experimental research will reveal to us; the task lies in finding out the meaningful content of the concepts that we use”.

Generally speaking, the goal is that in science the terminology should be exact and uniform. Members of the scientific community should try to speak a common language and that common language should be as set as possible. In the case of new branches of science like pedagogics the settling down of the concepts is just at its initial stage (Hirsjärvi & Huttunen, 1995, 90-91.). The early childhood education science as a part of pedagogics truly has only a short history in Finland at least. This helps to understand why this article devotes so much space to very numerous variations in the meaning of the concept of early childhood education.

Hirsjärvi and Huttunen (1995, 91) give a valuable advice: “Concepts should only be changed if it is really to be expected that the new concept is better than the older one. Thus, concepts should not be invented for the joy of it, neither for the sake of a change in practising science nor showing the sharp wits of a researcher.” In early childhood education new concepts have appeared like mushrooms after rain. Therefore this advice is good for all researchers, myself included. As the author of this article I formulate a new concept – early childhood education thinking. Beside that I introduce a new approach to early childhood education– the systems theory that has never been used before. These are big scale decisions. This article is based on scientific research (Härkönen, 2002a), where previously used concepts were thoroughly analysed from the point of view of the definitions used by their authors, and where problematic issues were critically pointed out. I have written a manuscript (Härkönen, 2002b), dealing with the systems theory in early childhood education and carrying international scientific references to what the systems theory really means. There is information available on systems theory thinking and modelling (Checkland, 1981; Gochman, 1968). Well-known representatives of the systems theory include Bucley, Bunge, Chang-Gen (1990), Luhmann, Rapoport (1968), Wertheimer etc. In Finland the systems theory has won a certain position in psychology, family psychology and pedagogics.

While speaking about the international aspect, it is worth while mentioning that even if the study was focused on the early childhood education concepts formulated by Finnish researchers, their papers and definitions were drawn up with a consideration given to all internationally known theories and theoreticians over a long span of time. In the books that I have studied for my research, the theories focusing on the development of the human being and the child have been elaborated by such personalities as Bühler, Bronfenbrenner, Bruner, Donaldson, Elkonin, Erikson, Freud, Galperin, Gesell, Inhelder, Newerowitsch, Pellegrini, Peters, Piaget, Pramling, Vygotsky and Zaporozhets. More specifically the pedagogical views were expressed by Darling, Dawydow, Dearden, Dewey, Freinet, Freire, Fröbel, Hohmann, Katz, Key, Klinberg, Kärrby, Lillard, Malaguzzi, Montessori, Neill, Parkhurst, Pestalozzi, Schyl-Bjurman & Strömberg-Lind, Spodek, Steiner, Sukhomlinski and Weikart. The cause of developing Finnish early childhood education has innumerable ties with the international community. Nevertheless, we have still very much to do in order to better know and apply internationally aired ideas and nurture our own visions.

References:

Brotherus, A., Hytönen, J. & Krokfors, L. (1999). Esi- ja alkuopetuksen didaktiikka. Juva: WSOY.

Chang-Gen (1990). Major systems theories throughout the world. Behavioral Science 35, 79-103.

Checkland, P. (1981). Systems thinking, systems practice. Chichester: John Wiley & Sons.

Gochman (1968). Psychological Systems. In David L. Sills (red.) International Encyclopedia of the Social Sciences. Volume 15. The MacMillan Company & The Free Press, 486-495.

Hakkarainen, P. (2002). Kehittävä alkuopetus. Juva: PS-Kustannus.

Hirsjärvi, S. & Huttunen, J. (1995). Johdatus kasvatustieteeseen. Porvoo: WSOY.

Hujala, E., Puroila, A-M., Parrila-Haapakoski, S. & Nivala, V. 1998. Päivähoidosta varhaiskasvatukseen. Jyväskylä: Gummerus.

Huttunen, E. (1984). Perheen ja päivähoidon yhteistyö kasvatuksen ja lapsen kehityksen tukijana. Joensuun yliopiston kasvatustieteellisiä julkaisuja 2.

Härkönen, U. (1983). Pienten lasten työkasvatus Fröbelin, Steinerin ja Montessorin kasvatusajattelussa. Kasvatustieteen pro-gradututkielma. Joensuun korkeakoulu. Savonlinnan opettajankoulutuslaitos.

Härkönen, U. (1991). Työkasvatusajattelun systeeminen tutkimus – tulevaisuuden näkökulma pienten lasten työkasvatukseen. Joensuun yliopisto. Kasvatustieteiden tutkimuksia 38. Lisensiaattityö.

Härkönen, U. (1993). Steiner-pedagogiikan ja taustafilosofian yhteydet. KASVATUS 24(2), 181-187.

Härkönen, U. (1996). Conceptions of female child care personnel about girls' and boys' work and mothers' and fathers' work education. Summary of the doctoral dissertation. In U. Härkönen Naiskasvattajien käsityksiä tyttöjen ja poikien työn tekemisestä sekä äitien ja isien työkasvatuksesta. University of Joensuu Publications in Education 38, 246-261.

Härkönen, U. (2002a). Esiopetus ja esiopetussuunnitelma varhaiskasvatuksen viitekehyksessä. Joensuun yliopisto. Kasvatustieteiden tiedekunta. Manuscript to be published soon. (Preschool and the preschool curriculum in the framework of early childhood education.)

Härkönen, U. (2002b). Systeemiteoria, varhaiskasvatus ja opetussuunnitelma. Joensuun yliopisto. Kasvatustieteiden tiedekunta. Manuscript to be published soon. (Systems theory, early childhood education and the curriculum.)

Jämsä, T. (2002). Discussions with Tuomo Jämsä, Ph.D., expert in semiotics, on 19.3.2002 at Savonlinna Department of Teacher Education of the University of Joensuu.

Karila, K., Kinos, J. & Virtanen, J. (2001). Varhaiskasvatuksen teoriasuuntauksia. Juva: PS-Kustannus.

Karjalainen, A. & Siljander, P. (1993). Miten tulkita sosiaalista interaktiota? KASVATUS 4/1993, 334-346.

Marton, F. (1981). Phenomenography-describing conception of the world around us. Instructional Science 10 (1981). Amsterdam: Elsevier Scientific Publishing Company, 177-200.

Lahdes, E. (1984). Varhaiskasvatus ja kasvatustiede. Teoksessa M. Ojala (toim.) Varhaiskasvatustutkimus Suomessa. Helsinki: Lastensuojelun Keskusliitto.

Oevermann, U., Tilman, A., Konau, E. & Krambeck, J. 1979. Die Methodologie einer "Objektiven Hermeneutik" und ihre allgemeine forschungslogische Bedeutung in den Sozialwissenschaften. In Schoeffner, H-G. (red.) Interpretative Verfahren in den Sozial- und Textwissenschaften. Stuttgart: Metzler, 352-434.

Oevermann, U., Allert, T., Konau, E. & Krambeck, J. (1983). Die Methodologie einer "Objektiven Hermeneutik". In Zedler, P. & Moser, H. (red.) Aspekte der qualitativer Sozialforschung. Studien zu Aktionsforschung, empirischer Hermeneutik und reflexiver Sozialtechnologie. Opladen: Leske Verlag + Budrich GmbH, 95-123.

Ojala, M. (1978a). Varhaiskasvatus tieteenä. KASVATUS (9), 5/1978, 308-313.

Ojala, M. (1978b). Varhaiskasvatus. Teoriasta käytäntöön. Joensuun korkeakoulu. Kasvatustieteiden osaston julkaisuja 2/1978.

Ojala, M. (1985). Varhaiskasvatuksen perusteita. Helsinki: Kirjayhtymä.

Ojala, M. (1993). Varhaiskasvatuksen perusteita ja haasteita. Helsinki: Kirjayhtymä.

Rapoport, A. (1968). Systems analysis: General systems theory. In David L. Sills (red.) International Encyclopedia of the Social Sciences. Volume 15. The MacMillan Company & The Free Press, 452-458.

Syrjälä, L., Ahonen, S., Syrjäläinen, E. & Saari, S. (1996). Laadullisen tutkimuksen työtapoja. Helsinki: Kirjayhtymä.

Takala, A. (1984). Mitä on varhaiskasvatus. Seminaariraportti lastentarhanopettajakoulutuksen kehittämisseminaarista 19.-21.9.1984. Opetusministeriö.

Uljens, M. (1989). Fenomenografi – forskning om uppfattning. Lund: Studentlitteratur.

Winch, P. (1979). Yhteiskuntatieteet ja filosofia. Jyväskylä: Gummerus.

Vygotsky, L. (1982). Ajattelu ja kieli. Espoo: Weilin & Göös.