

Didactic and Curriculum in ECEC from a Froebelian standpoint

Jan-Erik Johansson

Abstract

How can we use Friedrich Froebel's play theory in order to analyze ECEC, Early Childhood Education and Care? Wolfgang Klafki builds his theory of categorical *Bildung* on Froebel's play theory, which presupposes the interaction between child, adult and content, as in the didactic triangle. Froebel's play theory was lost in the hands of his followers Bertha von Marenholtz-Bülow and Henriette Schrader-Breyman. Developmental theories such as the cultural level theory and the recapitulation theory had a strong influence. One result was a child-centered laissez-faire pedagogy, waiting for the child to mature enough to be able to start school. With Klafki and his perspective on Froebel, it is possible to ask a set of questions in order to describe and analyze contemporary ECEC programs: (i) What are the didactic relations between child, adult and content, as in the didactic triangle? (ii) What is the content and how is it selected and organized? (iii) What kind of play and learning is intended?

Keywords

Friedrich Froebel, Wolfgang Klafki, Categorical *Bildung*, Play Theory, Didactic, Curriculum

Introduction

In this article, I explore the possibility to use the play theory that Friedrich Froebel (1782–1852) developed, as a starting point when analyzing ECEC programs today. One important connection to today's educational context is Wolfgang Klafki (1927–2016) and his theory of categorical *Bildung* which was built upon Froebel's play theory (Klafki, 1964, Chapter 2).

Froebel had followers in many countries, but both his theory and practical work were lost in many respects after his death in 1852 (Denner, 1988; Heiland, 2012a; Stübig, 2018). His writings were spread over different archives and were hard to access, and his followers could never agree upon any set of common ideas. Some were more interested in his educational materials and following the method they hoped to find. Many forgot the "authentic Froebel" (cf. Heiland 2012a, p. 312) who wanted to balance the child's freedom with

the teacher's control. Klafki provides an opportunity to consider if Froebel's forgotten play theory is of interest for ECEC today.

Erika Denner's (1988) study of the reception of Froebel's theory during the 19th Century is a starting point for my article together with a chapter by Heinz Stübig (2018) on what we can learn from Froebel today. A study of Norwegian ECEC (Johansson, 2020) and an earlier article about Froebel (Johansson, 2018) are also used. I will not follow the development of Klafki's critical-constructive model from the 1970's.

In the following text, there are German concepts, for instance categorical *Bildung*, as used by Klafki. Kindergarten refers to the institution Froebel named in 1840. To talk about institutions of today, I use the generic term Early Childhood Education and Care, ECEC, referring to settings for children under mandatory school age.

What follows is a present-day look at Froebel's work, firstly from the perspective of Klafki's categorical *Bildung*, when child, adult, and the world around interact. Secondly Froebel's curriculum is introduced, i.e., the content and principles used in his Kindergarten. I use the two concepts didactic and curriculum as complementary. Didactic refers to the parts of Froebel's theory that coincide with Klafki's categorical *Bildung*, and curriculum refers to the content and the principles used by Froebel in order to build a practical pedagogy reflecting his play theory. This application of the two concepts is a technical abstraction and does not rely upon their historical complexity (cf. Hopmann, 2015, p. 14). Then I discuss how Froebel's theory changed after his death. Finally, I suggest that Froebel's play theory can be a starting point, when asking questions about the didactics and curricula used in ECEC today.

Wolfgang Klafki and categorical *Bildung*

Bildung is a concept with many different connotations, with roots in 19th Century Germany (Sjöström & Eilks, 2021, p. 55f). With categorical *Bildung* Klafki refers to the words, concepts, and tools for thinking that we develop when we open ourselves up to the world around us, and when the world opens itself up for us. Klafki focuses on school didactics. However, chapter 2 in his PhD dissertation (1964) is about Froebel's theory of play.

Klafki (1964, p. 8) begins with two groups of theories of *Bildung*. The first group concerns material theories where the object of the teaching is the focus. Pupils are to learn a pre-defined set of facts, like name of rivers in the UK, cities in Brazil etc. Here we may find content aiming at classical *Bildung*, as a selection of traditional culturally approved knowledge. The other group consists of formal theories in which the pupil's development as a

subject is the primary aim. In ECEC we find child centered models where the child's interest is the starting point for all daily work, sometimes combined with an interest in supporting children in learning how to learn.

Klafki (1964, p. 87) focused Froebel's play theory, and its roots in Froebel's complex thinking. In the play theory Klafki sees an approach that unites the material aspects of *Bildung* with the formal aspects. Froebel's thinking is built upon the interaction between the internal and the external, between the child's inner life and the world outside. He started in the external world, which is to be internalized by the child as thoughts and then externalized again, not only through language but also in the child's own activity in the world around. In this, Klafki (1964, p. 110) finds the central part of Froebel's theory of play.

Stübig (2018, p. 314) notes that Klafki uses Froebel as a starting point, he neither criticizes Froebel's play theory nor return to Froebel after 1964. Educational researchers seem to accept Klafki's application of Froebel's play theory but forget about Froebel's original thinking. In a recent study of German didactics (Meyer, Meyer, & Ren, 2017, p. 180) and in a study of *Bildung* (Sjöström & Eilks, 2021) the connection between Froebel and Klafki is not commented upon.

Klafki wanted to connect both the internal and the external, both the formal and material aspects of *Bildung*. *Bildung* takes place in every situation where an immediate connection develops between a subjective, formal moment and an objective, material moment. This is what Klafki (1964, p. 297f), describes as the double-sided model of categorical *Bildung*. On one side, the world opens itself up in a categorical process, i.e., it gives insights, perceptions, and experiences. On

the other side, these insights, perceptions, and experiences, mean that we open ourselves up to the world around us. Categorical *Bildung* is not about learning a set of well-defined knowledge or skills, but about developing insights that in new situations make it possible to grasp and understand things in the world around us. This process provides knowledge and supports action. Stübig (2018, p. 311) says that Klafki focuses on three aspects of Froebel's theory of *Bildung*. Firstly, there is no superficial differentiation of material and formal aspects of teaching, or objective and subjective. Secondly, Froebel had a strong interest in the close dialectic relationship between these aspects in the phenomena of *Bildung*. Thirdly, Froebel focused the resulting work with *Bildung* in practice (Klafki, 1964, p. 87).

How is Klafki's categorical *Bildung* perceived? One answer is from Meinert Meyer and Anatoli Rakhkochkine (2018, p. 22) who suggest that in school only social subjects such as history, geography, politics, and religious instruction fit into Klafki's categorical analysis, and only to some extent mathematics and languages. They (2018, p. 25f) also say that there are no concrete details in Klafki's abstract model of categorical *Bildung*. However, Froebel during the 1840's developed a concrete and detailed Kindergarten program in practice, based upon his own play theory which later became the foundation of Klafki's categorical *Bildung*. Froebel aimed at Kindergarten subjects covering all aspects of children's life, including mathematics and geometry, in order to support the child to build its own reflected understanding of the structure of life and nature. Hence Froebel's original Kindergarten is an instance that indicates that Klafki's abstract model and its limitations, according to Meyer and Rakhkochkine (2018), may be possible to overcome.

I posit that categorical *Bildung* goes on in our lives already from birth, in interaction with adults and other children when we meet the world around us. However, categorical *Bildung*, have most likely had a limited place in the historical development of mass education. Primary school has its roots in confessional religious instruction which aimed at rote learning of prayers, hymns and elementary knowledge of religious beliefs, taught in the form of catechism, where the teacher asks questions and pupils are expected to answer instantly. Today this is like direct or scripted instruction, a debated mode of instruction (House, Glass, McLean, & Walker, 1978) which was used, for example, in the US Head Start program by Carl Bereiter and Siegfried Engelman (1966). It is hard to control the content a child will learn in the process of categorical *Bildung*, a type of learning which is not aiming at the transmission of predefined facts. The content of a process of categorical *Bildung* may be prescribed, but not its results. There is no guarantee that every child will learn the same things by taking part in a process aimed at categorical *Bildung*.

Froebel's play theory was lost after his death in 1852. There are few indications that Klafki's work more than hundred years later resulted in Froebel's reintroduction in ECEC of today. However, Klafki gives us a direct connection to central didactic aspects in Froebel's play theory, and then we ourselves can go back to Froebel's curriculum and his central concepts like play care and assess if they are of interest or not.

Froebel's didactic and curriculum for the Kindergarten

Friedrich Froebel (1782–1852) founded the Kindergarten in 1840 in eastern Germany. He spent his life building upon the work of Johann Heinrich Pestalozzi (1746–1827) and of

Jean-Jacques Rousseau (1712–1778). He studied science in Berlin with Professor Samuel Christian Weiss (1780–1856), founder of mathematical crystallography (Holser, 2008) which today is an important part of modern science. Froebel's religious views were based upon *Panentheism*, formulated by the philosopher Karl Christian Friedrich Krause (1781–1832), which suggests that God is in nature like in the case of Pantheism, but at the same time God is a separate entity.

The following discussion of Froebel is found in Helmut Heiland's series of books and articles (e.g., 2012b). Heiland has a focus on the "authentic Froebel", not on the Froebelian tradition created by his followers, and points to the complexity of Froebel's work as it develops in the context of German philosophy and politics (Heiland, 2012a, p. 317).

Froebel's concepts differ from educational thinking of today. Heiland says that Froebel did not differentiate between educational philosophy and general education, or between primary school and early childhood education. Froebel did not talk about didactics or teaching methods when he developed his thinking about *Spielpflege*, play care (Heiland, 2012a, p. 318). With play care he aimed at the child's understanding of the world around, using the play material in interaction with the adult. Heiland underlines that it is necessary not to modernize Froebel and lose the authentic traits of his thinking. Hence any description of the didactics in his play theory, is a perspective from outside.

Froebel's theory of play is an educational not a psychological theory of play, a point that both Klafki and Heiland make. Froebel's theory is directly related to his educational play materials, to activities in the garden and nature, and in group play. Froebel

develops a theoretically based didactic, but he never presents an explicit theory, it remains implicit and presents itself in the real-life practices in his Kindergarten (Heiland, 2012a, p. 317). It is no surprise that his followers saw his texts as difficult to understand (Denner, 1988, p. 23). It is the same with his educational materials, which were in constant development and never fully systematized by him.

Background

From 1816 Froebel tried to reform primary education, a work he reflected in *Die Menschenerziehung* from 1826, translated into English as *The Education of Man* (e.g. Froebel 1885/1974). During the 1830's Froebel tried to find a field without strong conflicts with the Churches and local administrations where he could continue his work with educational theory and its practical applications. He based his Kindergarten play theory on his experiences from working with young children as a private tutor, and as primary school reformer in a number of settings.

From 1840, he focused solely on the development of the Kindergarten, and on the training of staff. The political revolutions in Europe in 1848 resulted in his Kindergartens being forbidden in important German states 1851–1860. Followers interpreted his theory and practice in different ways in many countries worldwide (cf. Wollons, 2000), often in connection with the bourgeois women's movement (cf. Allen, 1986).

Kindergarten pedagogy

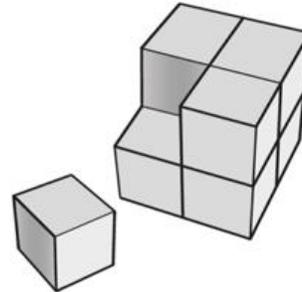
Froebel's Kindergarten pedagogy consists of three parts: gifts and occupations, outside activities in the garden and nature, and play in groups (Heiland, 2002, p. 56ff), in a curriculum that contains his natural philosophy together with didactics of the theory of play. The

foundation of Froebel’s thinking is threefold, firstly in the enlightenment philosophers and Pestalozzi; secondly in his spherical law as a principle for how everything in the world interacts; and thirdly in the sciences of mineralogy and crystallography (e.g., Heiland, 2012a, p. 323ff). Froebel wanted to educate free, thinking human beings, not machines for state use (Lange 1862, in Heiland, 2002, p. 20).

Froebel’s *gifts* and *occupations* consist of a set of geometrical materials and a set of everyday objects that build upon his work in schools. The geometrical *gifts* start in volumes; go over surfaces and lines to points. The *occupations* go the other way round, starting in points like beans, then over to surfaces and ending in volumes with modelling in clay.

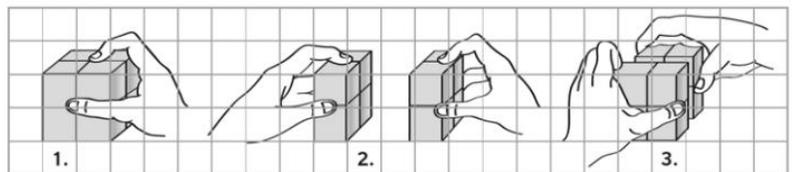
His favorite is the third gift presented with instructions in 1844 (Fröbel, 1986). It consists of eight wooden cubes (Figure 1). Children were sometimes free to use the material, and at other occasions directly instructed about what to build. Its aim is to support children’s understanding of the world’s structure. He believed that knowledge should grow in interaction between child and adult. The gifts and occupations are studied by many, for instance by Norman Brosterman (1997) and Margitta Rockstein (1999). The following figures (Johansson, 2020) are based upon illustrations in *A practical guide to the English kinder-garten (children’s garden)* (Ronge & Ronge, 1858).

Figure 1. The third Gift – 8 wooden cubes



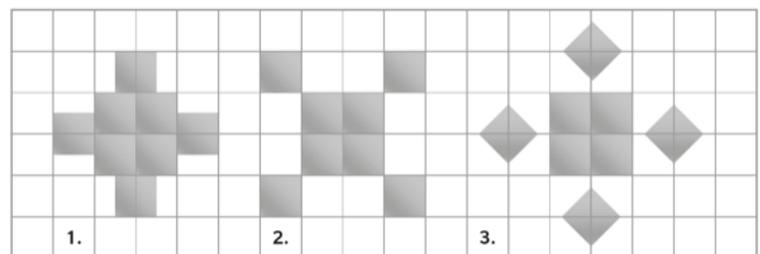
There are three ways to build, *Forms of life* are everyday objects from the world around the child (Figure 4). *Forms of knowledge* is about Mathematics (Figure 2).

Figure 2. The third Gift – Forms of knowledge



Forms of beauty aim at creating abstract symmetrical patterns related to crystallography (Figure 3).

Figure 3. The third Gift – Forms of beauty



Stübiger (2018, p. 308ff) says that Froebel saw mother and child as the unit to base the pre-school years upon, refraining from a focus upon schooling and coercion. Froebel wanted to foster good order among children and to strengthen their creativity. He trained staff caring for children in institutions, staff studied home care and how to interact with children. Ida Seele (1825–1901), Froebel's first Kindergarten student teacher, wrote about her experiences from her work as his Kindergarten teacher (see Heiland, 2002, p. 256ff). Another text about the practical work in the first Kindergarten is by Froebel's close colleague Wilhelm Middendorf (1793–1853) (1848; translated by Owen, 1906).

Seele describes garden work, Froebel's second content area, where wheelbarrows, loved by children, were used and children walked in rows singing. The barrows were full of stones, soil, blocks, grass etc., according to each child's wishes, and barrows were put back in their place afterwards. There were visits to the small garden for some playful garden tasks where children offered a helping hand and observed the growing garden. The major garden work was done by older children and adults (Heiland, 2002, p. 257f).

Froebel's third content area, group play, was intended to open the child's understanding of the world as a whole, with nature, family, animals, and plants (Berger, 2000). The child should also experience group unity. Froebel meant that group play supported bodily development, singing and language. Here we find the same ideas as behind the development of his play materials.

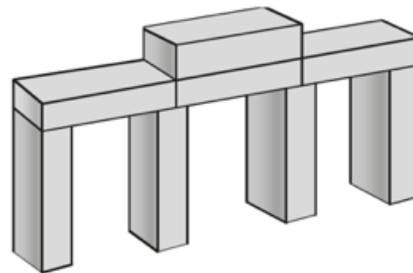
Didactic and play theory

When Froebel started to work with young children during the 1840's he realized the adult's central role for learning and for the

child's interaction with the world around them. Earlier Froebel developed self-instructional materials, where the adult, from a didactical point of view, would only act as the inventor of the material. However, this self-instructive material did not work out as he expected.

He saw a need for a direct, close interaction between child and adult, and introduced the idea of *Spielpflege* or play care (Erning, Neumann, & Reyer, 1987, p. 37), to support children's active understanding of the world around them. Froebel used the concept of *Ahnung*, to aim at the pre-conceptions which children would develop into self-reflected knowledge about the world before they started school (Heiland, 2002, p. 18). One example is when Froebel describes how mother and child build *Forms of life* (Heiland, 1990, p. 31). They use eight blocks shaped like bricks that go together as a cube in the fourth Gift (Figure 4).

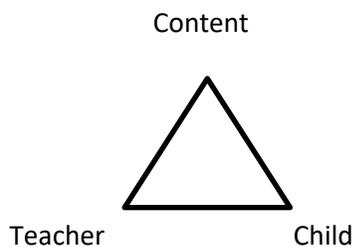
Figure 4. The fourth Gift – Forms of life



Froebel says that external objects are important in interaction with Kindergarten children. The interaction between entity, variation, and unity was his tool in supporting children to become aware of the structure of the world. Children should not stay with simple facts and concrete details but see the unity of reality. Froebel aimed at direct knowledge about the inner truth of each object in order to bridge the gap between the child and the object (Heiland, 2002, p. 70).

Froebel focuses on the need for interaction between child, adult and object, i.e., all three components in the didactic triangle (Figure 5). Froebel's play theory combined with the perspective of categorical *Bildung* can be used to study other models for play and learning in ECEC with the help of the didactic triangle, an abstract and general model relating three aspects of teaching (e.g. Hopmann, 2007, p. 111ff).

Figure 5. The didactic triangle



One example is how Froebel tried to balance control and freedom, he opposed both authoritarian rote learning and the total freedom of the child. How is this balance enacted in the didactics of today's ECEC programs?

Curriculum: content and principles

For Froebel, the focus on play, work, and learning is a given. His curriculum aims at the structure of the world as a whole in which God, nature and mankind are integrated by the spherical law he outlined in 1811 (Heiland, 2012b, p. 356). The child should find its own way into the world, the interaction between child and adult aims at the child's reflection of itself as the foundation of knowledge, close to the world and understanding its structure (Heiland, 2012b, p. 40).

According to Heiland (1993, p. 6) Froebel after the 1830's no longer applies the

spherical law, or the law of the internal and external and their integration. In his work on educational games, the intermediary law replaces the sphere. He introduces the law of the unification of life or *Lebenseinigung*, when two aspects, objective and subjective, or internal and external, meet inside the child. According to Froebel this is the goal of education (Klafki, 1964, p. 91).

Froebel did not think in terms of school subjects or academic disciplines. Knowledge is there in the world, and the task is to see the geometrical, mathematical structures uniting everything, an idea coming from his early academic studies of mineralogy and crystallography in Berlin under the influence of Weiss. This means that the child is free, but this freedom is restricted by the parameters of Froebel's theory, based upon his ideas on nature and religion. Froebel's theory of play provides the child with a possibility to find knowledge of this world system. There is neither a *laissez-faire* aspect in Froebel's curriculum, nor is the teacher expected to rule in an authoritarian way (Liebschner, 1992).

Gifts and occupations, gardening, and group play are three realms of content in Froebel's Kindergarten. Content was chosen in accordance with his principle of mutual contradictions, *Entgegengesetztgleich*. This concept seems to be a parallel to Newton's third law that states that when one object exerts a force on a second object, that second object exerts a force that is equal in magnitude and opposite in direction on the first object. Such contradictions should be mediated in educational work in accordance with the intermediary law, the *Vermittlungsgesetz*. However, these ideas were not accepted by many of his followers, some argued strongly against the possibility of the applying of the

intermediary law in every educational task (Denner, 1988, p. 49).

First followers: Marenholtz-Bülow and Schrader-Breymann

Froebel's followers changed his Kindergarten curriculum and didactics, with his focus on the play theory as a support for the child to understand the world as a whole. Among his most important followers were Bertha von Marenholtz-Bülow (1810–1893) and Henriette Schrader-Breymann (1827–1899). They left his play theory and instead aimed at preparing working-class children for their future as adult workers, starting in their perspective on society and the context (Denner, 1988, p. 88ff).

For Marenholtz-Bülow, a society with political democracy was unthinkable. Poor, working-class children had to be controlled in line with the authoritarian ideologies ruling in Germany at her time. It is a paradox that she wanted this group of children to acquire an aesthetic training, since workers in those days had little opportunity to participate in creative tasks at their workplaces. She prepared poor children for work in factories in her *Volks-Kindergarten* model and did not follow Froebel's idea of a unified Kindergarten for children from all social classes (Denner, 1988, p. 102ff). Because of the harsh conditions of working-class children, she thought it necessary to adapt Froebel's original Kindergarten to the new urban situation. She developed a *social-pedagogic* Kindergarten, where education was used to control poor children. Working-class children, she argued, should learn their place in society as citizens and prepare for future hard work in the labor market. It is not easy to see if Froebel's play theory had its place in her didactics aimed at training for work and the aesthetics of a future working life (cf. Brosterman, 1997, p. 100). Her primary goal and

her curriculum were far removed from Froebel. There was no longer a focus on a relatively free use of gifts, garden work and group play. The gifts were used in school-like lessons where the pre-school teacher first showed children how to build, and then children were to follow the teacher's instructions step by step and copy her work (Heiland, 2012a, p. 344), contradicting Froebel's play theory.

The same conclusion is true regarding Henriette Schrader-Breymann. She saw the situation for the working-class children as Marenholtz-Bülow did but developed another didactic and curriculum. In 1882 in Berlin, she started an education for pre-school teachers, the *Pestalozzi-Fröbel-Haus*, which influenced ECEC in many countries. Her curriculum focused on the home, motherly care, and the preparation of children for their future monotonous work in factories. She said the use of Froebel's gifts were dangerous for the children's bodily and intellectual development. Starting with Pestalozzi, she wanted the Kindergarten teacher to act like a mother, and the Kindergarten to be like a home. Froebel wanted the opposite; the home should be like a Kindergarten. She hoped to compensate poor children for their lack of motherly care and to reduce the influence of the labor movement (Augustin, 2012, p. 283). The characteristics of her model included the monthly theme using a project method, household work with cooking, and the idea of spiritual or intellectual motherhood. In Pestalozzi, she found the home-education ideology and the mother as the teacher-at-home. However, the goal of her critique is not Froebel but Marenholtz-Bülow, who tried to stay close to Froebel with her version of his program. Schrader-Breymann did not use the gifts in accordance with Froebel's play care relationship to children (Denner, 1988, p. 109) and there was no role for crystallography (Augustin, 2012, p.

332ff). In her program there were still components from Froebel, such as the idea of the teacher following the children; and didactics built upon Froebel's principle of the external becoming internal and then external again. She pointed to the need for small child groups, close to Froebel's ideal of a family-life (Augustin, 2012, p. 424). Opportunities for categorical *Bildung* was not an important part of the Schrader-Breymann didactics in her development of passive, motherly teachers. The idea of the Kindergarten as a foundation for school was lost (Heiland, 2012a, p. 345).

Froebel's Kindergarten was transformed with the aim of controlling working-class children in urban areas and as such, the inner logic of Froebel's Kindergarten became lost. His play theory was forgotten together with the ways he used gifts and occupations, garden work, and group play. There was no place for what Klafki defines as Categorical *Bildung*. There was no interest in the child's understanding of themselves, others, and the structure of the world. The teacher was no longer to support activity and reflection. However, some elements of Froebel's practical work survived. For example, *circle time* is one daily structure that still exists (Chen, Zeng, & Peng, 2020). Other components connected to the Froebel tradition include songs, storytelling, building with blocks, finger plays, group play, modelling with clay and outdoor activities.

Developmental theories

The roles of developmental theories and child psychology have been debated for decades (cf. Tatlow-Golden & Montgomery, 2021, p. 3f). The problems with theories about development and progress, and their complex relations to norms and school systems, are not easy to solve (cf. Baker, 1999, p. 830). It is an important debate, at the same time it is evident that we all

change from birth until old age, and it is hard not to think about the youngest in terms of development.

Froebel's play theory was substituted by two new developmental theories, one cultural-educational, and one biological. Both influenced schools and Kindergartens. When the original countryside Kindergarten was developed there were already many different ECEC institutions of varying kinds (Luc, 1999) where middle-class and working-class children often were separated (cf. Read, 2010). During these years, the Kindergarten became more and more influenced by developmental theories.

Cultural level theory was developed by Tuiskon Ziller (1817–1882) a German educationist. and follower of Johann Friedrich Herbart (1776–1841), one of the founders of modern pedagogy. The idea was that humanity has evolved from the raw and primitive into the cultivated and complex, and that every child would develop in the same way as humankind had done throughout history. It means that content in school had to start with primitive culture during the early years in school, when children were at a perceived primitive level. The book Robinson Crusoe was used as an exemplar of primitive, low culture, as opposed to other cultures at higher and higher levels through the school years, and schoolchildren were supposed to develop in a uniform way. For Marenholtz-Bülow this meant that childhood was the arena where immature children develop in order to become more advanced schoolchildren. Froebel's idea about childhood as important in its own respect was lost. One result was the development of authoritarian institutions for poor children (Nawrotzki, 2009, p. 183) far from the authentic Froebel Kindergarten.

A second idea focused on development is the German biologist Ernst Haeckel's (1834–

1919) *recapitulation theory*. This said that an individual, from conception to adulthood, repeats every step of the historical development of the human species, from early simple structures to the most developed human competences. Only white males had a chance to reach the highest levels of development. Both theories today have lost their importance due to a lack of empirical research evidence, and because of their racial bias (Baker, 1998, p. 169; Fallace, 2012, p. 530).

These theories were introduced in the US during the end of the 19th Century, where the Froebelians encountered critique, for instance from G. Stanley Hall (1844–1924) (Cremin, 1962, p. 101ff). Hall criticized authoritarian education in general, and wished to substitute rigid educational models with psychological, developmental theories in order to build upon what he saw as natural development. He argued that pre-school children, by nature, were immature, and only had to develop during the pre-school years as a preliminary for primary school (Baker, 1998, p. 166). His thinking influenced ECEC and school significantly. Hall built upon Haeckel's recapitulation theory, and this new perspective opened the door for an interest in children (Goodchild, 2012, p. 66). This was not to return to Froebel's authentic play theory and his aim to connect children to the world in a process supported by adults and teaching material. It was rather a shift towards a child centered *laissez-faire* freedom. Froebel's theory was described as outdated and speculative, not based upon empirical research. However, later Hall encountered almost the same critique, that both his reconceptualization theory and its empirical foundation lacked vindication (Brooks-Gunn & Johnson, 2006, p. 255).

Hall was not the sole critic of the American Froebel tradition (Manning, 2005, p.

372). One of the founders of pragmatism and progressive education, John Dewey (1859–1952) also wanted to substitute parts of Froebel's educational philosophy with psychology. Dewey partly followed recapitulation theory in activities like "preliterate man to modern Chicago" in his Laboratory School (Cremin, 1962, p. 141). Neither Hall nor Dewey, however, fully knew Froebel's authentic Kindergarten play theory.

Hall thought it necessary to base ECEC education on studies of children's development. His idea was to let the child mature in a safe institution without external demands from adults. The resulting didactic triangle consists of three isolated components: any content will do, there is no adult who interacts closely with the child, and the child waits for the years before school to pass. The curriculum seems to be empty too, no specific content, just one principle: not to disturb the child's development. As mentioned, Haeckel's theory has racist bias, and so has Hall's work (Baker, 1998, p. 164ff).

Arnold Gesell (1880–1961) for a long time strongly influenced ECEC in many countries. He was a student of Hall and thought of child development as general and universal (Dalton, 2005; Harris, 2011). Gesell's idea of maturation could result in a passive relation to children in ECEC, where staff too often waited for development to take place. During the 1970's Gesell was substituted, for instance by the theories of Jean Piaget (1896–1980) and Lev Vygotsky (1896–1934). Piaget and Vygotsky started to develop their theories during the 1920's and it is worth noticing that the practical applications of these theories were not introduced until several decades later in ECEC settings. Piaget was recognized early and presented his work for instance in Elsinore in 1929 (Brehony, 2004, p. 748) at the *New Education Fellowship* yearly conference. Piaget first won broader acclaim in the US during the

early 1970's and then became popularized in many other countries. Towards the end of the 1970's, the same happened to Vygotsky. His texts were translated into English, and these influenced researchers in the US and other countries. However, the unsettled status of Vygotsky's texts and their translations (cf. van der Veer & Yasnitsky, 2011) means that there is no general agreement on the status of his theories today. This parallels the problems in Froebel's case: many followers found the original texts hard to access and there are few translations of his work. Neither Piaget nor Vygotsky developed didactics and curricula for the pre-school years in the same way as Froebel did. However, their thinking stimulated the development of many practical ECEC applications. The same is true for other psychologists such as Jerome Bruner and Daniel Stern.

There is much more to say about modern ECEC programs and how psychologists have influenced ECEC significantly for more than 100 years, often indirectly without an interest in the practical applications of didactics and curricula. On the other hand, psychologists opened the door to the child again, a door that was closed after Froebel's death in 1852 when his followers moved his Kindergarten in an authoritarian direction.

Froebel's Play theory as analytical model for ECEC

Helmuth Heiland argues that Froebel's educational play theory uses a different set of concepts in comparison with theories of education and psychology of today. Froebel has a global, united view of the universe as an integrated system, based upon his understanding of science and religion. The child was to observe and see this universal system, with the help of Froebel's play theory. Children

should recognize the world around them and integrate the knowledge they had achieved, and at the same time relate to all children and adults around them.

As a contrast, today we find programs which rely on tests or evaluations, and some following the "teaching to the test" principle or using scripted instruction. A system for external control of ECEC through tests was developed early in the US (Cuban, 1992, p. 188). In the US tests are still used to control ECEC (cf. Snow & van Hemel, 2008). In Pennsylvania we find an instance of extensive testing, with more than 140 different instruments in use (van Schaaik, 2016).

For Froebel childhood was a fundamental stage in life with its own intrinsic value. The years before school were important in building a firm foundation for the years to come, not by training in the "three R's": reading, writing and arithmetic. Froebel's aim was to support active children in meeting the world around them by interacting with adults, which fulfilled his idea of the unity of life. He did not focus separately on creativity like Marenholtz-Bülou, or on motherly home activities like Schrader-Breyman; these aspects were integrated parts of his play theory. He had no intention in fostering working-class children's readiness for their adult life as disciplined workers. His fundamental interest and purpose are in nature and children as part of nature and its ongoing development, not school subjects per se.

This means that Froebel's body of work offers a much greater educational perspective that is not limited to a traditional school classroom or to authoritarian ECEC programs.

There are many competing models of ECEC, and it would be interesting to know more in detail about their foundations and practical

work. However, large empirical studies are difficult to organize. House (, 1979, p. 40) found problems in the organization of the *Follow through* project in the US during the 1970's. This was a huge evaluation of Early Childhood Education programs financed through the federal *Head Start* program during the 1970s (St. Pierre, 1979; Bereiter, & Kurland, 1981). I suggest we start with a more limited task: discussing didactics and curricula, not in order to re-introducing Froebel's model, but to use it as a contrast to ECEC programs of today.

What will be the future of ECEC? Will there be more of the traditional school teaching and learning with a focus on direct school preparation for 3-year-olds as, for instance, in the French *École Maternelle*? Are there still instances of a child-centered pedagogy in which the focus is the pre-school child's maturation?

Which are the didactic relations between child, adult and content?

The didactic triangle, focusing on the child, adult and content, can be found in any educational model (Hopmann, 2007, p. 111ff). This is not a model that Froebel himself used, but with Klafki's theory of categorical *Bildung*, it is evident that Froebel stressed the importance of both adult and content in interaction with the active child, the need for an object related to the world around the child, and a balanced relation between teacher and child.

Traditional educational models have used authoritarian rote learning of facts, hymns, words etc. in which content is chosen in advance, and with no place for play in any respect. This can be seen as an instance of the material side of *Bildung* that Klafki describes (1964, p. 77f). On the other side there might be *laissez-faire* models with a random selection of content and no structured setting for adults

supporting children. Here the focus is on the child as a subject, an instance of Klafki's formal aspect of *Bildung*. Child, adult and teaching object has no organized interaction, the child is waiting for maturation to take place. In a *laissez-faire* model, play is based upon the child's inner life, an idea far from Froebel's play theory.

Heiland (2012a, p. 312) says that it is a mistake to see a conflict between Froebel's play theory applied in the Kindergarten, and his model for education in school. They are not two separate entities, but two aspects of categorical *Bildung*. In Kindergarten, adult and child are supposed to playfully interact with the world, acquiring new words and tools for thinking, and school education will later use the same approach. The child will reflect upon the new knowledge which will later develop into clear concepts in school.

With the help of the didactical triangle, we may study when ECEC models differ and when they agree: Froebel, Montessori, Steiner, Reggio Emilia and other models, discussed at length in *The International handbook of early childhood education* (Fleer & van Oers, 2018). Will we find fully balanced didactic triangles as with Froebel?

A curricular perspective: How is content selected and organized?

What is behind ECEC programs? Roberta Wollons (2000) presents some of the diverse ideas behind ECEC programs and the contributions made by religious organizations, political doctrines, and educational or psychological ideas. Marenholtz-Bülöw and Schrader-Breyermann aimed at fostering working class children and lost Froebel's focus on children becoming free, thinking persons. Today James Heckman (cf. 2008) expresses a different view when he supports investment in all

children from birth, supporting both intellectual and social development, starting in the worldviews of parents. This is more in line with Froebel's principle of life unity, *Lebenseinigung*.

Klafki's theory of categorical *Bildung* does not say much about what children are supposed to learn. Froebel's materials, the gifts and occupations, should make the world available to the child, together with outdoor work, and organized group play. Principles such as play care and unification of life were fundamental to Froebel's idea of the interaction between every single part in his system, in accordance with his spherical law. Content should be presented as balanced contradictions which are to be mediated. Froebel aimed at children experiencing a solid pre-conceptual understanding of human relations and the mathematical structure of the world, to acquire words, intellectual tools and knowledge (Heiland, 2002, p. 61). This experience should make it possible for children to develop well-structured, detailed concepts later in school.

We may ask which principles are guiding the structure of daily work and how coherent or fragmented the program is. Is the focus on pre-constructed content in accordance with explicit goals from school subjects, or is the aim to develop pre-conceptions of the world around the child as set out by Froebel? Is content selected in accordance with Froebel's idea of balanced contradictions to be mediated? Or is such content randomly chosen? What role do developmental ideas and other theories play?

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