Reflections of Fröbel in discourses about mathematics in Scandinavian early childhood education and care

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From the late 1800s early childhood education and care (ECEC) in Scandinavia was influenced by a few kindergarten pioneers, one of whom was Friedrich Fröbel. His ideas were spread in the Scandinavian countries. In this poster, I describe my project proposal for identifying the rhetorical devices connected to reflections of Fröbel, that have been used to support changes in the paradigms in ECEC over time. This project can highlight how current discussions about mathematics in kindergarten are being formulated.

Keywords: Fröbel, mathematics, kindergarten, paradigm shifts

Finding reflections of Fröbel’s ideas in Scandinavian ECEC

In my poster, I will describe my research project proposal about how Friedrich Fröbel and his ideas have been used across time and place to present different perspectives about mathematics in early childhood education and care (ECEC). Fröbel continues to have an important role in discussions about ECEC in Scandinavia, and is often referred to when people talk about ECEC. In his writings, he discussed the inclusion of mathematics, through activities connected to his gifts (Balke, 1995). In my project, I will identify how adaptations of his ideas (that I refer to as reflections) have been used to support ideological discussion about mathematics in kindergarten. By looking at the reflections of Fröbel’s ideas about the role of mathematics in ECEC across time and across place, I will be able to determine the different discursive strategies used to promote different ideologies.

May (2016) used the metaphor of a swinging pendulum between two poles, to describe the history of early childhood education policy and pedagogy. “Broadly the “poles” characterise contesting paradigms of childhood: the child as nature whose holistic development is a natural process and who learns through play and discovery – construction. The child as a reproducer of knowledge, who as an empty vessel is filled with agreed knowledge, skills and cultural values – instruction” (p. 20). Over time, this pendulum swings between the two sides because of economic, political or professional factors (May, 2016). Meaney (2014) highlights how different ideologies affect what content, such as mathematics, in kindergartens could be. In analysing how key elements from Fröbel’s theories, for example his “gifts” or views of mathematical pedagogy, are reflected in discussions about ECEC I will be able to discuss where proponents of the reflections are situated on the pendulum swing. Identifying how Fröbel’s ideas have been used in different ways in the past and across countries will provide understandings about how rhetoric devices are used to promote ideologies.

An example is how the Norwegian Minister of Education and Research, Torbjørn Røe Isaksen, used Fröbel explicitly in a public debate in a Norwegian newspaper (Isaksen, 2014). Lange and Meaney (2016) argue that Isaksen uses Fröbel to promote mathematics in kindergarten as common sense understanding which has always been a part of kindergarten. Thus, Isaksen uses a reflection of Fröbel and his mathematical “gifts” to argue that having more mathematics in ECEC is a
continuation of an existing tradition. By doing this, he tries to influence the trajectory of the swinging pendulum so that it swings more towards the pole of instruction and away from current kindergarten policy, which has been swinging more towards the constructive approach (Lange & Meaney, 2016).

Another example is from Sweden at the end of the nineteenth century, from a magazine for women about their home life. In this example, Fröbel is also, on one hand, used to argue for readiness for school and working life but on the other hand his toy gifts can make the child able to bring gifts to their family (Cristel, 1892). The author of the article reflects Fröbel, his gifts and view of mathematics into the article in a different way than Isaksen did in 2014. Cristel (1892) argues that families can purchase the boxes of gifts “and in that way let the ideas of this high-minded pedagogue into their home” (p. 244, own translation). This again creates a different trajectory for the pendulum. The purpose of the gifts is presented here as a way of bringing the child closer to their family, and making them able to produce something by their own desire in their own lives, the pendulum here swings more towards the constructive pole.

The aim of my project is to look for reflections of Fröbel in Scandinavian kindergarten history and to identify how these reflections have been used to create momentum for the pendulum that swings in different directions. Initial investigations suggest that Fröbel is reflected in different ways, in order to argue for different agendas about how and why we should do mathematics in ECEC. As a mirror can reflect an image that is distorted or mostly correct, the reflections of Fröbel are more or less representative of his original views. However, this project is not about judging how valid the different reflections are. Rather by critically analysing the discourses on Fröbel and his ideas, I can identify factors that affect the paradigm shifts about mathematics in kindergarten.

References