The Establishment of Danish School Sloyd and the Beginning of Sloyd Education in Iceland

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Abstract

Sloyd is a pedagogical system that utilises handicraft training to support the development of students within general education. Sloyd pedagogy was introduced in Denmark around 1880; it grew out of the national cottage craft movement and was initiated by Axel Mikkelsen. Mikkelsen designed a pedagogical Sloyd system for use within Danish schools and established a teaching institution (The Danish Sloyd Teachers' Association, 2014). The new pedagogical approach in Denmark was aimed towards general education and was based upon the pedagogical ideas of the founders of Nordic Sloyd: Otto Salomon in Sweden and Uno Cygnaeus in Finland. At this time, Iceland was a Danish colony and was thus influenced by Danish education. In 1890, Danish school Sloyd was introduced to Iceland by Jon Thorarinsson, a school director in Hafnarfjordur, after he had completed a course at Mikkelsen's handicraft school in Copenhagen. Danish School Sloyd was adopted in Iceland in 1890, under the title of School Industry. Thorarinsson used this term to distinguish school industry from home industry, the aim of which was to help households to be self-sufficient. Thorarinsson introduced Sloyd pedagogy to Icelandic educators in 1890 and, in early 1900, craft was established within the National Curriculum as part of general education in Iceland.

Keywords: Pedagogy; Craft; Sloyd; Denmark; Iceland; Mikkelsen; Thorarinsson.

Introduction

Sloyd is a pedagogical system that applies handicraft training, with the aim being the overall development of students through general education. In the beginning, woodwork was the main undertaking, but, today, sewing and knitting are also incorporated. The objective of handicraft activities is using the hands to make valuable objects; however, Sloyd pedagogy is separate from practically applied crafts. While the latter has an emphasis on manual labour, Sloyd pedagogy focuses on who is doing the work (Borg, 2008). The original definition of Sloyd was 'skilful' and referred to the making of crafts (Chessin, 2007). Within the context of education, however, it refers to the value of craft in general education (Borg, 2008). The aim of Sloyd was to practise craft via general education, in order to build a child's character, thus encouraging moral behaviour, increased intelligence and diligence (Thorarinsson, 1891).

The basic ideas that influenced the Sloyd movement originated from the philosophers Froebel and Pestalozzi (Barnard, 1859). Pestalozzi (1746-1827) is regarded as the ideological father of Sloyd education: he believed that education, both vocational and theoretical, created individuals of little value to society. Pestalozzi asserted that students should be at ease with the demands of nature and that they should be provided with space in which they could move around and play. Based on Pestalozzi's ideas, Froebel (1782–1852) established handwork as the centre of all learning in his school and developed a practical form of pedagogical craft education. Drawing on Pestalozzi´s and Frobel's ideas, Sloyd pedagogy was later established in Scandinavia, first by Uno Cygnaeus in Finland and, later, by Otto Salomon in Sweden (Thorbjornsson, 1990). The original Sloyd model was promulgated by Salomon through the thousands of teachers who attended his classes from all over the world (Bennett, 1926).

Salomon's educational theories were adjusted to the capabilities of each student; thus, they were based on individuality. Three fundamental issues were associated with these theories: (1) the creation of useful objects, (2) the analysis of work processes and (3) the teaching method employed (Bennett, 1826). Handicraft practices were a significant part of Salomon's teaching: when the teacher provided the students with teaching and supervision, analysis of the work procedures employed was imperative (Thorsteinsson and Olafsson, 2013). Salomon's training system was based on progression from simple exercises to more complex ones (Svensson, 1902).

Aksel Mikkelsen became one of Salomon's students and subsequently became the initiator of Danish School Sloyd (Thorsteinsson and Olafsson, 2013). Salomon encouraged Mikkelsen to establish Sloyd in Denmark, but Mikkelsen's methods of teaching Sloyd differed from those of Salomon in many ways (Thorsteinsson, Olafsson and Yokoyama, 2009). Mikkelsen's model of educational Sloyd was adopted in Iceland in 1890 by school director Jon Thorarinsson (1891) and remains the basis of curriculum development within Icelandic craft education (Thorsteinsson, Olafsson and Yokoyama, 2009).
This paper outlines the inception and establishing of Sloyd education within Denmark. It subsequently explicates Aksel Mikkelsen's role in the establishment of Sloyd education as part of general education in Denmark and his role in developing the system for Danish School Sloyd. The paper then discusses Mikkelsen's influence on the introduction of Sloyd education in Iceland. Finally, the authors discuss the content of the article and draw their conclusions.

Aksel Mikkelsen and Danish School Sloyd

Educational Sloyd in Denmark arose from the national cottage craft movement. The aim of the cottage craft movement was to encourage and help poor country people to utilise handicrafts in order to earn a living in places where poor soil made agricultural pursuits almost impossible (Bennett, 1937). The frontrunner of this movement was Clauson-Kaas, a retired officer of the Danish army. Clauson-Kaas had learned a plethora of minor handicrafts from his parents throughout his childhood. Later, when home schooling his children, he decided to teach them handicraft along with the more traditional subjects. Many other children joined his lessons and learned various kinds of craft as a means of earning a living (Waldemar, 1894).

At this time, Clauson-Kaas realised the value of handicraft as part of elementary education. Soon after, when he retired from the army, he relocated to Copenhagen, where he aimed for the dissemination of his instruction within Danish society. In 1871, Clauson-Kaas began publishing *The Northern Journal of Home Industry* and, in 1873, he became editor of the *The Home Industry News* (Bennett, 1937).

There was economic purpose in Clauson-Kaas propagating his understanding of the value of educational handicraft, in terms of encouraging cottage craft in Denmark. This purpose was further supported by nationalistic inspiration after the Danish lost Slesvig to Germany in 1864 (Bennett, 1937). When The General Danish Society for Domestic Industry was founded in 1873, Clauson-Kaas became its secretary. The society aimed to unite all cottage craft associations in Denmark and become the mouthpiece for these associations (Waldemar, 1894).

Members of the Danish cottage craft movement had, in general, a different understanding of the value of educational craft than the initiators of the Sloyd movement, Uno Cygnaeus and Otto Salomon. However, many of these were humanitarian, such as the manufacturer and metal craftsman Aksel Mikkelsen (1849-1929), who had an understanding of and interest in the educational ideals of Cygnaeus and Salomon (The Danish Sloyd Guide, 1893).

Mikkelsen went to see Otto Salomon in Sweden and took a summer course at Salomon's international teaching institution for Sloyd in Nääs. Salomon subsequently helped Mikkelsen to establish Sloyd education within Denmark. However, Mikkelsen's principles for teaching were different from the Nääs system, in which students worked with tools of normal adult size and put effort into good surface treatment. The Swedish system was also based on individual work, but Mikkelsen wanted his students to undertake the same work at the same time and his system was built upon class instruction (Kananoja, 1989).

In 1881, Mikkelsen began to teach his disciplines handicraft within the context of general development (The Danish Sloyd Guide, 1893). In 1893, he opened the first Sloyd school in Nestved, Denmark. In 1895 he established, at his own cost, a Sloyd school that focused on handicraft training in support of general education (Bennett, 1937; The Danish Sloyd Guide, 1893).

Rather than aiming at the teaching of poor students in order to support their future living, it was ascertained that handicraft could be utilised in schools as a pedagogical tool in developing the spiritual and physical talents of students. There was also emphasis on the fact that *(a) Sloyd was in sharp contrast with other school subjects; it was practical instead of being merely theoretical and it set to work faculties in the child that would otherwise remain unused in school and (b) It was the beginning of training for many occupations involving bodily labour* (The Danish Sloyd Guide, 1893:1).

In 1886, Mikkelsen encouraged the establishment of the Danish Sloyd Teachers' Association (The Danish Sloyd Teachers Association, 2014), which aimed '*to secure the introduction of pedagogical Sloyd into both the higher and lower schools of the country*' (Industrial Education, 1892:495). The association was supported by the Danish government from its inception, as it recognised the value of Sloyd as a general subject within Danish schools.

Later in 1886, Mikkelsen purchased a building in Copenhagen and established his own Sloyd teacher training school: The Danish Sloyd Teachers' College, known as *Dansk Sløjdlærerskole* in Danish. Mikkelsen subsequently began to run courses in Sloyd for practising teachers (Kantola et al., 1999), with twenty-four male teachers and several female teachers taking part in his first course (Industrial Education, 1892). In 1918, the Danish Sloyd Teacher College became a public school and, in 1919, a public property owned by the government.

Figure 1: Aksel Mikkelsen (1849-1929), Initiator of the Sloyd System in Danish Schools

The government supported the Danish Sloyd Teachers' Association in establishing Sloyd in Danish public schools and in implementing Sloyd courses for practising teachers. Mikkelsen was given the task of developing a didactic system based on his ideas and thus Danish school Sloyd was introduced. This system shared many commonalities with Salomon's methods of teaching Sloyd in Nääs, but there were also some

differences. The underlying principles of the Danish Sloyd system were:

1. The starting point of all Sloyd instruction should be the natural interests of the child (The Danish Sloyd Guide 1893:2).

2. Wood should be the material used and the tools should be only those in common use. In general, the things made should be objects used in daily life, particularly those that require a coat of paint to be finished (The Danish Sloyd Guide 1893:3).

3. The course of instruction should be organised so as to consist of (a) a small or limited number of groups of models and exercises progressively arranged, and (b) an unlimited number of coordinated extra models (The Danish Sloyd Guide 1893:3).

4. Preparatory exercises should precede the work of making models whenever it is thought desirable to single out a particular process for practice, but the preparatory exercises should always be followed by the making of the corresponding model (The Danish Sloyd Guide 1893:3).

5. Both class and individual instruction should be employed. Class instruction should be utilised to show working positions, demonstrate proper use of the tools and the sequence of operations needed for the correct construction, etc. (The Danish Sloyd Guide 1893:4).

6. In class instruction, the general appearance of a model or exercise piece and the general method of making it should be taught by showing the model itself and explaining it; the details of construction and procedure should be taught through the use of drawings on the blackboard, which should be copied by the pupils into their notebooks (The Danish Sloyd Guide 1893:4).

7. Tools should be selected or especially constructed to suit the child's size and strength, and no tool should be used by a pupil until its use and 'technology' have been fully explained (The Danish Sloyd Guide 1893:5).

8. The marks of the cutting tools should not be 'effaced by the finishing' (The Danish Sloyd Guide 1893:5).

The Danish School Sloyd system was physical and was thus aimed at developing students' intellect, their physical abilities and their handicraft skills. The system was partly based on training students, via physical exercises, to use tools. The main tools used were a saw, a knife, a planer and a chisel. Mikkelsen (1895) emphasised that the aim of handicraft education was to develop students' hand and eye coordination. It was not to create craftsmen, but to ensure that pupils were dexterous, teaching them to appreciate beauty, to research, to experiment and to invent. Mikkelsen's physical Sloyd was much appreciated by teachers and students (Allingbjerg, 1983).

Mikkelsen's Sloyd system was based on principles for the correct use of tools. Furthermore, the size and design of tools had to be in accordance with the students' size and physique. Thus, Mikkelsen designed suitable workbenches and craft tools for both left-handed and right-handed students. Under the Danish Sloyd system, the saw was used as the main tool and all classes began with models made with a saw but without the use of a plane. Files and sandpaper were not used: these were forbidden, as they could mask faults. Students were given exercises to train them in the use of the tools; for example, they had to saw and plane together rhythmically. Woodwork was the only undertaking because the school time allocated to

Sloyd was felt to be too little to even learn one kind of Sloyd thoroughly (Bennett, 1937).

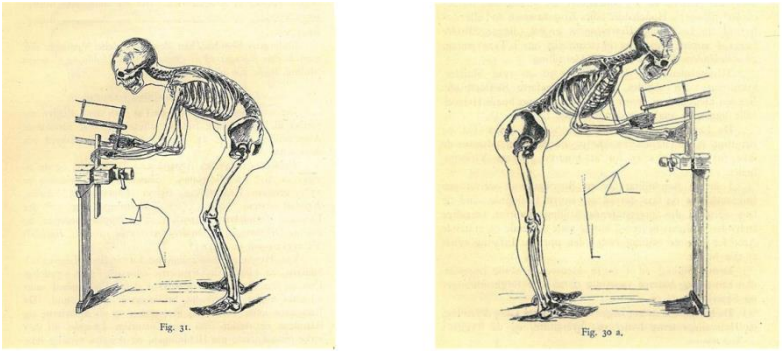

Figure 2: The images show the correct and incorrect working positions for sawing.

The figure above was taken from Mikkelsen's book on working positions and illustrates the correct and incorrect working positions when using a saw (Mikkelsen, 1886a). Mikkelsen's system for Danish School Sloyd emphasised what the founder referred to as normal rhythmical movements, including his critique of the physical exercises undertaken in gymnastic lessons with unnecessary effort. According to Mikkelsen, the body's normal physical functions should be used during school lessons. A healthy soul in a healthy body was the aim of physical movement in Sloyd lessons (Clausen, 1935).

In the introduction to his book *Working Positions* (1886a), Mikkelsen referred to Rousseau's book, *Emil* (1764/1979), in which Rousseau claimed that nature created everything as it should be, but that things later became out of order because of human beings. Furthermore, Rousseau argued that a child's healthy body moves naturally in the beginning but later goes awry as a result of bad habits.

In the Danish School Sloyd System, all students had to progress through a row of numbered models and make the same objects at the same time. The first project was a flower pin and the last a box for knives.

According to Mikkelsen, following the principles of the system had pedagogical meaning and thus it was meaningless to put effort into surface treatment. Consequently, the use of sandpaper to hide scratches or covering mistakes with paint was forbidden (Mikkelsen, 1886b).

Sloyd, according to Mikkelsen, was better suited than most other subjects to tackling the significant problem of homogeneity within schools (Mikkelsen, 1886b). The majority of students that joined Mikkelsen's courses were young and thus were innovative teachers open to new pedagogical ideas. This was possibly the reason why Danish School Sloyd education quickly became popular amongst students in Danish schools. However, the stress that Mikkelsen's system placed upon teaching students the correct use of handicraft tools placed limits on students' independence and thus it did not develop their creativity. The students were not given flexibility in making their own handicrafts; rather, they had to follow the teacher's instruction in making things in a specific order and used tools in a rhythmical and synchronous manner (Gjerløff and Thejsen, 2011).

Moreover, it was probably not easy for young and innovative teachers to follow Mikkelsen's system, as it lacked flexibility for teachers: even Mikkelsen himself was not always able to follow his own rules. In his book, *Sløjdskolen og dens Forhold til Folkeskolen* (1885:98), Mikkelsen articulated how, at his first Sloyd school, he stopped at one point to follow the system because his students wanted to make Christmas gifts for their mothers and younger brothers and sisters. He also added that, as students were making the gifts themselves, they were of bigger value for their families (Mikkelsen, 1885).

Another Dane, Melgaard, also attended Otto Salomon's Sloyd School at Nääs and established a teacher training institution in Askov. However, unlike Mikkelsen, Melgaard developed the Sloyd subject similarly to Salomon, in focusing on individual instruction. There was an argument between Meldgaard and Mikkelsen, which led to two mutually antagonistic Sloyd schools existing in Denmark for many years. As a result of this feud, Danish Sloyd was unable to keep abreast of wide-ranging pedagogic improvements for a period of time.

Iceland was under the Danish Crown when Sloyd was initially established in Denmark; thus, this had an influence upon Icelandic culture. In addition, Icelanders usually entered higher education in Copenhagen (Mikkelsen, 1891a and 1891b), and this was undoubtedly the reason why the Danish Sloyd model was adopted in Iceland (Thorsteinsson, Page and Olafsson, 2009).

The Adoption of Danish School Sloyd in Iceland

Sloyd was first introduced in Iceland by the school director Jon Thorarinsson, Mikkelsen's first Icelandic student in Copenhagen. Thorarinsson, supported by the Icelandic parliament, had travelled to Scandinavia during the summer of 1890, in order to examine general education and new processes within education (Finnbogason, 1903/1994). Thorarinsson subsequently joined an in-service summer course for potential teachers of Danish School Sloyd at Mikkelsen's Danish Sloyd Teachers' College in Copenhagen (Mikkelsen, 1891a). In 1890, after returning from Denmark, Thorarinsson began to teach Danish School Sloyd at Flensborg, his upper secondary school in Hafnarfjorður. His teaching was based on Mikkelsen's Sloyd system and he named the subject 'School Industry'.

The concept of School Industry underlined Thorarinsson's (1891) understanding of the importance of establishing Danish School Sloyd as part of general education within Iceland. The aim of School Industry was to apply handicraft as an educational tool in order to support the general development of students and to help them to become good citizens, while the aim of Cottage Industry was to educate students to become self-sufficient in earning a living through handicraft (Bjarnadottir, 1912).

Thorarinsson was also an initiator of teacher education in Iceland and became the first director of the Icelandic Teachers' Association, which was founded in 1889. In 1894, the Icelandic Teachers' Association sent a request to the Icelandic Parliament, requesting financial support in introducing school industry lessons within an upper secondary school in Reykjavik (Athugasemdir vid frumvarp, 1891). The financial committee declined the request, but recommended that parliament enabled the association to buy sets of woodwork tools for thirty students and that an Icelandic trainee teacher was sent to Mikkelsen's Danish Sloyd School in Copenhagen (Frumvarp til fjarlaga, 1891).

The proposal was further discussed, but many members of parliament were not familiar with the Sloyd pedagogy and its value within general education. Various speakers at the parliament informed that Sloyd would increase respect for physical work and would ensure that young people became more independent and self-sufficient (Jonsson, 1891; Sveinsson, 1891). Other speakers claimed that Sloyd would provide a link between theoretical and practical tasks within schools and that students would learn national cottage craft. Furthermore, many members of parliament did not understand the difference between school industry and cottage craft (Jonsson, 1891).

Magnus Stephensen, the Danish governor of Iceland, claimed that the so-called 'school industry', or Danish School Sloyd, was beneficial to young students' health and important for Icelandic education, as young Icelanders were not participating in military training. Thus, he recommended the establishment of a

special school for Danish School Sloyd in Reykjavík (Athugasemdir við frumvarp, 1891). However, the majority of parliament speakers declared that other subjects were more important than 'school industry', or Sloyd. The proposal of the Icelandic Teachers' Association was thus rejected (Jonsson, 1891; Briem, 1891). Nevertheless, it was clear from the debate that the speakers were interested in following the developments in education in Scandinavia (Briem, 1891).

At this time, Thorarinsson was also a member of parliament, president of the Icelandic Teachers' Association and headmaster of the upper secondary school in Flensborg. In 1892, he sent a request to parliament, asking for support in teaching Danish School Sloyd at his school in Flensborg. Thorarinsson subsequently received help in purchasing tools for ten students, preparing a classroom for Sloyd education and funding a teacher's salary (Olafsson, 1891).

In 1892, the Icelandic parliament asked the governor to finance teacher education at the school and, on 1 February, the governor issued a directive for teacher education in Flensborg (Reglugjord fyrir kennarakennslu vid althydu- og gagnfrabedaskolann i Flensborg nr. 9/1892). The directive indicated that the teaching period should be from 1 April to 14 May and that students in upper grades should have lessons in pedagogy from 1 October to 1 March every year (Jonsson, 1932).

The teacher-training courses were held at Flensborg at the end of every spring semester from 1892 to 1895 and teacher training at the elementary school in Flensborg was part of the educational programme. One of the main subjects taught was 'school industry', along with drawing; religion; geography; natural science; mathematics; Icelandic and handwriting (Jonsson, 1932). Thorarinsson enjoyed woodwork in his spare time and taught school industry himself (Jonsson, 1932). The teaching was based on Mikkelsen´s teaching methods, with Sloyd ideas (Thorarinsson, 1891) and woodwork being the only undertakings. The saw and the plane were the main tools used and students were not permitted to remove scratches with sandpaper. Physical exercises and the correct use of tools were practised in groups. The teaching plan was flexible, in order to meet needs of individual students (Thorarinsson, 1891), while teaching was based on students' interests: woodworking projects were artefacts connected to their daily lives. When the whole class was working on the same project, the teacher provided an example of this and outlined the working process on the blackboard. The students subsequently did their own drawings in their notebooks (The Danish slöjd guide, 1893).

Few students attended the teacher training courses. Indeed, in the spring of 1895, the course was cancelled because the potential students did not fulfil the prerequisites for taking part in the course. In the spring of 1896, the teacher training courses were also cancelled as a result of too few students enrolling on the courses.

In 1908, Sloyd teacher education was reintroduced at a new teacher college in Reykjavik. Thorarinsson, who was an educational director in Reykjavik at the time, asked Matthias Thordarson, the first archaeological guard in Iceland, to teach Sloyd at the school (Gunnarson, 1958). Thordarson had undertook Nordic Studies at the University of Copenhagen, and, in 1802, he had attended a course with Otto Salomon at Nääs in Sweden. He had also been a Sloyd teacher at Reykjavik Elementary School. Unlike Thorarinsson, Thordarson based his teaching on the Nääs system.

Discussion and Conclusions

Sloyd pedagogy was established in Scandinavia and a practical form of this was developed by Uno Cygnaeus in Finland, Otto Salomon in Sweden and Aksel Mikkelsen in Denmark (Thorbjornsson, 1990). The work of the philosophers Froebel and Pestalozzi had a big influence on the

originators of the Sloyd movement in Scandinavia (Bennett, 1937): Pestalozzi is often seen as the ideological father of Sloyd education (Barnard, 1859), while Froebel established a practical form of teaching craft education in schools, which was later used to teach Sloyd.

The educational Sloyd movement in Denmark grew out of the national cottage craft movement. After attending Otto Salomon's school in Nääs, Mikkelsen established his own Sloyd school in Copenhagen: the so-called Danish Sloyd School, with an emphasis on the development of students' intellect, their physical abilities and their handicraft skills. Mikkelsen established a Sloyd system that was different from the Nääs system; for example, he taught students in groups, did not use sandpaper and used tools specially designed for children.

Mikkelsen was one of the founders of the Danish Sloyd Teachers' Association (The Danish Sloyd Teachers' Association, 2014). The association aimed to introduce Sloyd in Denmark and was immediately supported by the Danish government. Aksel Mikkelsen had stated that Sloyd could be a link between the world children lived in and the reality within schools; perhaps this is one of the reasons why Sloyd became a worldwide movement.

Thorarinsson travelled to Scandinavia to examine new concepts in education. He attended a Sloyd course at Mikkelsen's Danish Sloyd teachers' college in Copenhagen and was impressed by the Sloyd ideology and the teaching methods. Upon his arrival back home in Iceland, he immediately began to implement Mikkelsen's Sloyd ideas at his school in Flensborg, instructing both young students and future teachers in Danish School Sloyd.
The Danish School Sloyd system had a great influence on Icelandic education, in disseminating a new ideology for teaching handicraft in schools. It also introduced teacher education to Iceland. Later, Sloyd pedagogy became the basis of craft education in Iceland and remains at the core of the Icelandic curriculum.

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