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Opportunities for learning in inclusive education

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Introduction

How teaching is organized and carried out is a relevant issue when it comes to inclusive education. The research problem discussed here is the following: What are the opportunities for participation in learning in classroom practice for different groups of pupils?

Opportunities and participation are not equivalent to learning or benefit, but learning is dependent upon opportunities and participation (Alexander, 2001), and is therefore of interest in itself.

The tensions between teacher oriented and a pupil oriented teaching are classic in literature about education (Alexander, 2001; Cuban, 1993, 2009). Dewey meant that teacher oriented teaching make pupils passive. They are brought into viewers’ and listeners’ role, making learning and learning content diffuse, mechanic and uniform not considering the individual differences between learners (Dewey, 1899/1980). The Norwegian national curriculum for compulsory school as early as 1939 warned against teacher oriented teaching. In to-days terminology, Dewey asked for more adapted teaching, pupils’ abilities and qualifications should be the point of reference for the teaching. He wanted extensive pupil-activity. He wanted the pupils to be engaged in tasks which could lead them forward towards the learning objectives. His intention was to move the attention to be directed at the pupils’ activity, and towards cooperation between teachers and pupils in the pupils’ learning processes. By this he introduced views on teaching and learning that have had a dominating role in the discussions about theory and practice in education.

Anna Sfard’s metaphors acquisition and participation highlights another discussion about opportunities for learning (Sfard, 1998). Acquisition can take place both by the means of teachers’ teaching and pupils’ own activities. The principal distance between teacher mediation and pupils own active learning is wide. They share however the notion that learning

is associated to the pupils being able to reproduce existing knowledge. Learning of this kind is individual, but with two extremes. One is that teachers "fill up" the pupils repertoire of knowledge by passing on information. The other is that the pupils' own acquisition-activities increase the amount of knowledge being stored as schemata and structures. Learning as participation is relational, learning is to create, personalize and store new knowledge. Knowledge is then situated, dependent upon the social conditions where it appears. Learning of this kind is dependent upon cooperation between actors to be familiar with certain social practices. In this case the dialogue between pupils and between pupils and teacher is important for learning. In the literature there are strong advocates for both perspectives, but also those who stress that one should not choose one before the other. Instead they must be seen together and combined to make a balanced approach to learning (Cuban, 2009; Sfard, 1998).

To study teaching in an inclusive perspective is a challenge, because of the complexity of the concept (Haug, 2010). Inclusion may be understood with reference to both vertical and horizontal dimensions. The vertical dimension represents different levels in the education system, ranging from ideology, policy and structures, via teaching- and learning-processes to results. The horizontal dimension consists of all the elements or challenges that could or should be met on each different single vertical level. I have identified four different elements in inclusion with special relevance to classroom work, as it has been presented when introduced in Norwegian education (Haug, 2003). Inclusion is operationalized into:

- Fellowship: All children should be a member of a school class and be a natural part of the social, cultural and professional life of the school together with everybody else.
- Participation: Genuine participation is distinct from being an inactive onlooker.
- Democratization: All voices shall be heard. All pupils shall have an equal opportunity to comment upon and to influence matters concerning their own education. Democratization involves two processes: to be allowed to contribute to the best of the fellowship according to qualifications and to be given opportunities to benefit from the same fellowship.
- Benefit: All pupils should be given an education to their advantage both socially and substantially.

Based on an earlier analysis of research on inclusive education I am convinced that comparative studies make it easier to conclude about inclusion in classroom work (P. Haug,

2010). A part of this presentation therefore compares learning opportunities for two groups of pupils, well-functioning pupils and pupils receiving special education.

Method and data

Data comes from the research project “Quality in education”, carried out by a research group in Volda University College 2007-2012, (Haug, 2012). We made use of a structured observation form containing 65 different categories, originally developed by Kirsti Klette (Klette, 2003). It registers what the teacher does, what a single chosen pupil does, what the class/group does and what is the content of the activities. Totally 45 classes, 15 each of the grades 3, 6 and 9 was observed during one week each, activities were registered with five minutes intervals. The data consists of totally 999 lessons, an average of 52 minutes and 204 single pupils were observed.

The method has been called «momentary time sampling» (Powell, Martindale, & Kulp, 1975). It gives some types of activities a higher chance for being registered than others. When the time interval between registrations increases, the chances decrease for a reliable registration of low frequent activities and for brief activities. Long-lasting activities and high-frequent activities as we have observed here have a better chance for being registered according to real frequency.

Totally 15 observers have been collecting data. A challenge has been to secure high agreement between observers in how to understand and register different categories. Klette (2003) reports acceptable correlations. We have not been able to calculate observer reliability formally and directly, only indirectly. Both before and during data collection there were discussions about how to categorize different situations, and about how to understand the different categories. From these measures we conclude that there has been a strong collective and common understanding of how to register different aspects of teaching and learning.

Schools and classes were chosen to represent highest possible variety. Schools cover three counties, being high, in the middle and low on national achievement tests. The 13 municipalities are selected according to number of inhabitants (large, middle and small) and on the size of school budget (large, middle and small). Within municipalities we selected 26 schools according to size (large, middle and small). We only included schools with at least one class for each age group of children. Within schools we selected classes 3, 6 and 9. To be allowed into a classroom, teachers had to accept participating, and we could only observe children when parents had given their permission.

Results

The discussion of results will be concentrated upon the pupils' activities. Regardless of approaches to theories about learning, it is the pupils' own physical and mental activities that represent the limitation and possibilities for learning. The presentation is divided into three different issues: content, collective pupil activity and individual pupil activity.

Content

The presentation of content here consists of three different aspects: subjects, non-subject and miscellaneous (cf. figure no. 1). Subjects are registered when the observers have been able to identify the subject or subjects that have been worked with at the time. (In Norwegian school there are totally 10 subjects in primary school and 13 subjects in lower secondary school.) Non-subject content is registered when routine situations occurs, such as meals, restroom, visits, tidying and disciplining. Miscellaneous is a rest difficult to connect directly to school subjects or routine activities but is of relevance to school activity, such as theater visits, concerts, receiving guests, morning ritual, pupils' shows, mountain trips, skiing etc.

SET IN FIGURE NO. 1 ABOUT HERE

From the figure it is clear that the amount of subject content far exceeds the two others, and that it increases with rising age of the pupils from 68 percent for the third grade up to an average of 76 percent for grade nine. Non subject content shows a reverse and falling tendency from 28 percent and down to 12 percent in grade nine, naturally enough. The older the pupils, the less need there is to use of lesson time to these activities. The rest content is fairly stable 14 – 15 percent.

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There are however relatively extensive content differences between classes. This is shown in figure no 2. The vertical lines in the figure indicate the full variation and the minimum and maximum scores for the classes in each grade. The differences between the extremes for each grades are big, 20 to 30 percentage points. The differences between grades are even bigger. In a class third grade non-subject content cover almost 40 percent of the observations, while in class nine grade non-subject content is found only in 2 percent of the observations. In one class third grade a little more than 40 percent of the observed content is subject oriented, in one class ninth grade the amount of subject content is more than 80 percent.

Collective pupil activity

The next figure only includes situations when subject(s) have been identified. All observations with non-subject and miscellaneous content is excluded. This does not mean that the other activities are unimportant for children's learning and development. It is done to be able to get insight into the main activity in school, subject teaching and learning. The national curriculum assigns all time in school to working with compulsory subjects. It is also of importance to note that the unit of analysis in this part is class or group activity for the pupils. When many pupils are observed together, data indicate what characterizes the majorities' activities at the time of observation.

The most important issue for learning is what the pupils actually do, and how the teacher supports the pupils' activities. Of these reasons Sahlström defines two main forms of pupils' activities in class: listening (to teacher) and working with tasks, desk work (Sahlström, 1999). Figure no. three gives the data about these activities for the pupils. It is of course to simplify matters a bit to construct these two activities as distinctive with five minutes observation intervals. They sometimes could be more interwoven. For instance, the categories listen to teacher also includes classroom conversation. The figure shows that pupils are doing tasks about 61 % of the observations, and they listen to the teacher about 30 % of the time. During the remaining 9 % pupils are waiting, preparing or are inactive. The differences between grades are small. Only about 16 % of the tasks are differentiated, common tasks for all pupils dominates.

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Individual pupil activity

The most important issue is how this way of organizing teaching and learning function for the individual pupil. To approach this kind of questions, we also observed single pupil's activities, totally 204 pupils. Here I compare the activity-level of two different groups of pupils, they who receive special education (20 % of the observations) and they who belong to the category "well-functioning pupil" (23 % of the observations), as defined by the class-teacher. In this context it is of importance to notice that the only valid criteria for pupils to be allowed special education in Norway is that they do not profit sufficiently from ordinary teaching. For most pupils, special education is offered only a few lessons a week, the rest of the time they stay in class. In this study the special education pupils were out of class about one-fifth of the time in average. The observations presented in figure no. 4 show pupils' activities when they all were taught together in class and when they were supposed to work with tasks. The results documents how this dominating teaching strategy function for the two

different groups of pupils on the variables we have tested. The total percent in the figure exceeds 100 since the categories are not exclusive (it is for instance possible simultaneously to interact and do tasks etc.).

SET IN FIGURE NO. 4 ABOUT HERE

Data indicate that on individual level, the frequency of doing tasks for all groups is less than when registered on group or class level. Compared to pupils receiving special education, the well-functioning pupils are the most active working with tasks (difference 17 percentage points). They interact most with other pupils (difference 13 percentage points). They are less inactive (difference 12 percentage points). And they receive less teacher support (difference 8 percentage points). The differences are noticeable and statistically significant. In total there is a relatively low amount of interaction with other pupils. There is also little direct teacher support, but most for the pupils receiving special education. The reality is that the pupils work mostly individually, and pupils receiving special education a little more than the others.

The way teaching has been organized, the responsibilities for learning in school has been transferred to the pupils and with weak teacher support, a conclusion that also is made in several other studies of Norwegian teaching (Grønmo, Bergem, Kjærnsli, Lie, & Turmo, 2004; Vibe, Aamodt, & Carlsten, 2009). This is very demanding, especially for the pupils in need of special support. Parents' view in a survey from the same research project reported here is similar. Of all the parents, 27 % meant that their child was not able to independently do the tasks given. Of parents whose children receive special education, 52 % meant that their child had problems doing the tasks.

Discussion

The intention in this presentation was to look into what opportunities pupils have for participation in classroom practice, comparing two groups pupils: well-functioning and those receiving special education. These observation results indicate that there has been a change in ways of teaching in school from teacher orientation to pupil oriented activities. Research both internationally and in Norway have indicated that teacher oriented teaching has dominated school up till at least the 1990's. The rule of two-third has often been referred to, to illustrate how this is done, with reference to (Flanders, 1970). In about two-thirds of a lesson someone is talking, teachers talk two thirds of this time, and two thirds of teacher's talk consists of direct instruction. Based on our data, we can now formulate a new rule of two-thirds: Teaching deals with subject matter two-third of the time, when teaching deals with subject

matter, pupils are doing tasks two thirds of the time. The rest of the time they mainly listen to the teacher.

What we see here is a change in teaching in a direction that has been wanted for many years, as is mentioned in the introduction of this presentation. This must not be taken to mean that the patterns we have seen are in accordance with what for instance Dewey requested. The study does not give any answers about why we have got this change just now. From other sources I can present at least two possible reasons. First this can be explained by the way data has been analyzed. By concentrating the interest on pupils' activities it comes forward that the pupils do tasks in several organizational settings in the classroom. They do tasks when the teaching is collective, when there is group-work and when they work individually. This indicates that there is no necessarily direct accordance between what the teacher does and what the pupils do.

The other reason I can see for this change is recent developments in Norwegian education policy. Documentation indicates that Norwegian pupils do not achieve according to expectations on national and international tests. These results also show that the spreading of pupils' results is high, especially for the pupils at the lower part of the achievement scale. These results have been interpreted as consequences of lack of adapted teaching, that each pupil's readiness for learning has not been met satisfactorily. This led to a clear political decision to strengthen individually adapted teaching (Det kongelige utdannings- og kunnskapsdepartement, 2004). With adapted teaching defined as individualization, teaching changed in that direction, even though adapted teaching also could be understood within a collective perspective.

What these data also documents is a high variation between classes in the amount of subject and non-subject orientation. Dependent upon which class pupils attend, they will receive quite different proportion of subject matter. This again will represent quite different opportunities for learning. They partly support a conclusion from a Norwegian study from the 1980's (Gjessing, Nygaard, & Solheim, 1988). There they also found that there were quality differences between classes in teaching. It was interpreted as consequences of differences in teacher competence. Pupils who came to classes with a highly competent teacher received a teaching giving them far better opportunities, than pupils who came to a class with a less competent teacher. Later research has confirmed such lines of thought, and this could well be the case behind our data (Day, Sammons, Stobart, Kington, & Gu, 2007; Hattie, 2009; OECD, 2005).

Pupils receiving special education are less active on the variables presented here than the well-functioning pupils when the formal conditions are the same. The exception is teacher support. The amount of direct teacher support to each pupil is low for both groups. If doing tasks should function for all pupils, and especially for those receiving special education, many of them are dependent upon immediate qualified assistance when they are in need (Markussen, Brandt, & Hatlevik, 2003). They need support to keep up motivation and the mood for work, and to be assisted in the substantial aspects of the tasks. If not, their work will come to a standstill. During observation periods we have registered many pupils being inactive, waiting for help that they have not got. The challenge is that when tasks are worked with individually, it is not possible to immediately follow up all the pupils, because of limited time at disposal. With 30 pupils in a class, and a 45 minute lesson, pupils would receive an average of 90 seconds each from the teacher. To be dependent upon or expect individual support for all pupils in ordinary teaching seems to have limited potential unless the pupil-teacher ratio is low.

These results show clear limitations in the teaching strategy of doing tasks individually. Pupils receiving special education have the same formal opportunities for activity in this kind of teaching as others, but their participation and use of these opportunities are lower than the well-functioning pupils. The result is that they in reality are exposed to a learning situation that they do not master as well as other pupils. With intentions to increase adapted teaching the result has been that pupils being most in need of adapted teaching are among those who seem to benefit less from the approach chosen. This also is the case for other low-achievers in school, such as the boys (Haug, 2010). The result could be that the strategy chosen for teaching in ordinary classes now results in a need for extra measures such as special education, which is contrary to the intentions introduced by the ideals of inclusive education.

According to Anna Sfard's metaphors acquisition and participation, the results presented here indicate that the former dominates. The participation metaphor presupposes some kind of cooperation between actors or dialogue between pupils and between pupils and teacher as important for learning. There is little participation of that kind in the observation material. Learning then, is here mostly associated to the pupils being able to reproduce existing knowledge. We have also registered as others (Helgevold, 2011) that some pupils have developed an impressive ability to find the correct answers in textbooks on tasks without much learning. This is "doing without learning", being able to reproduce knowledge without any deeper understanding.

From the analysis of this observation study I conclude that what class a pupil attends is of importance. Much of the teaching is organized as individual work with tasks. The way teaching is organized give pupils with different learning readiness systematically different opportunities for learning because of different patterns of participation. Pupils receiving special education are more segregated than well-functioning pupils, they are less active and they interact less with other pupils during lesson time. They receive more direct teacher support than the well-functioning pupils, but the amount is small for both groups. These aspects do not cover all the inclusive elements mentioned earlier, but they clearly indicate that they who receive special education are in quite another situation when it comes to inclusion than their well-off peers. Teaching and learning conditions for them are more unfavorable when it comes to all the elements in my operationalization of inclusive teaching: fellowship, participation, democratization and benefit.

A further question will of course be how to organize teaching to be more inclusive. This is not the place and time to give a full answer. What can be said is that an alternative to individualization is to a further extent to develop collective approaches to teaching and learning, and through such methods support pupils activities. What seems to be the main challenge is to create closer connections between teacher and pupils and between pupils about subject matter during lesson time. With reference to Dewey, this was also a part of his vision, that these groups together should construct the learning process.

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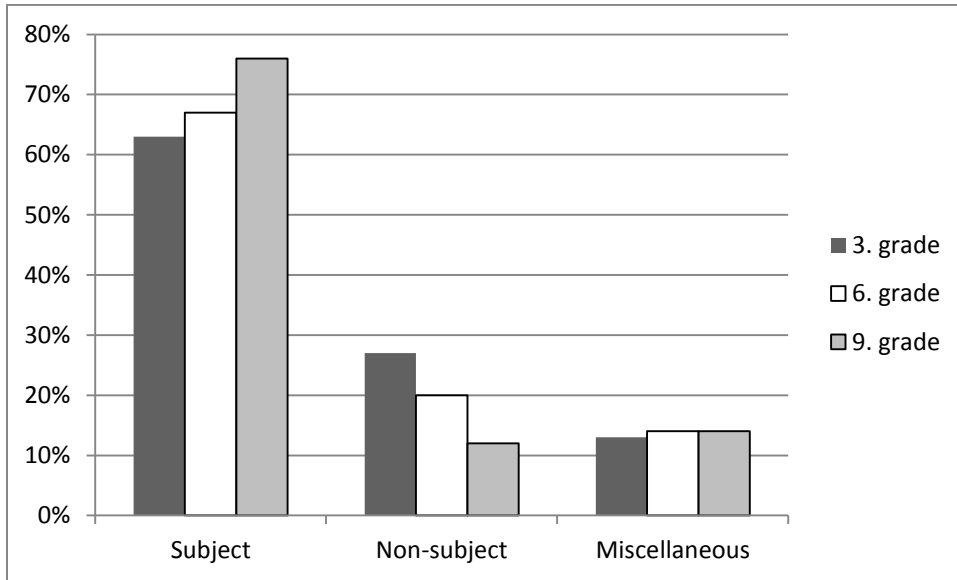


Figure no. 1.

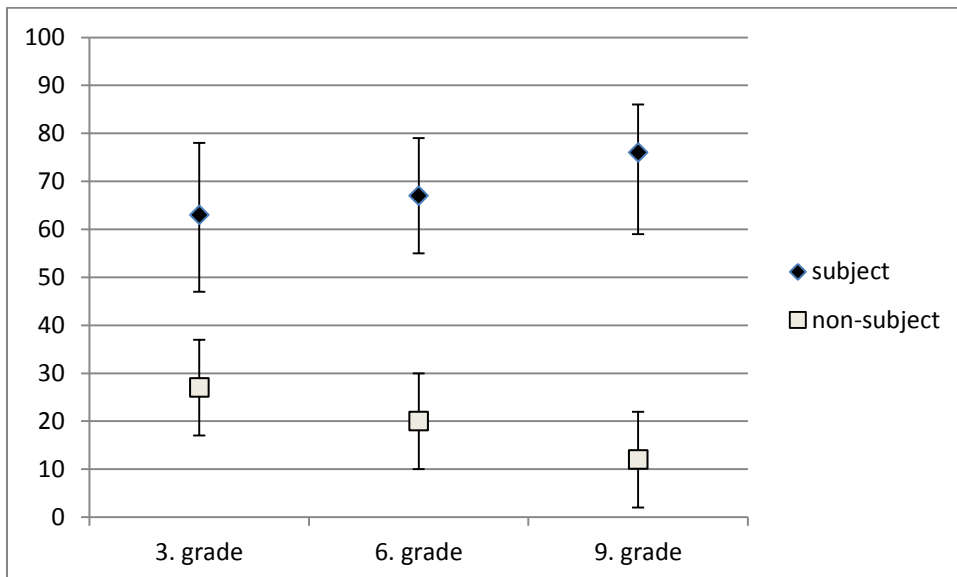


Figure no. 2 Differences between classes in observed activities

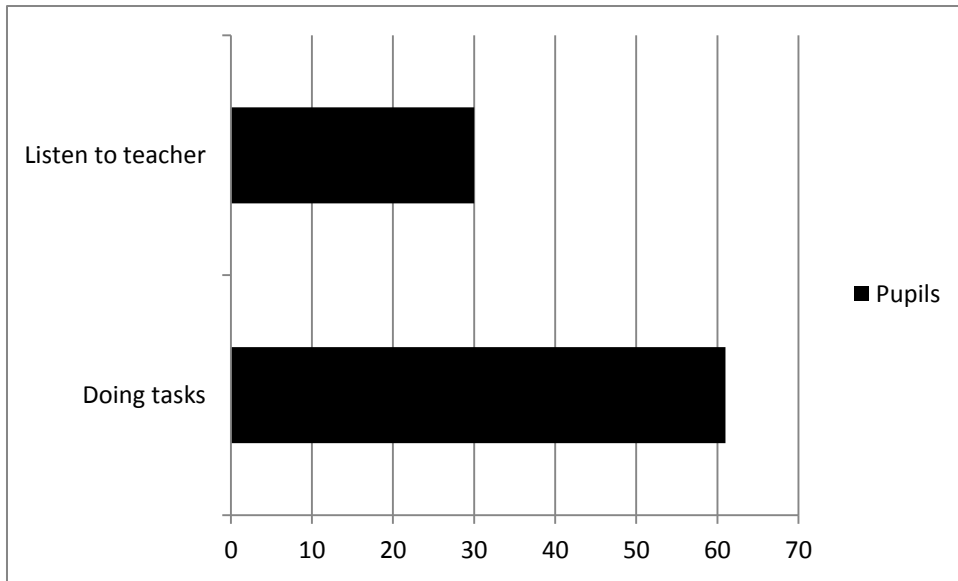


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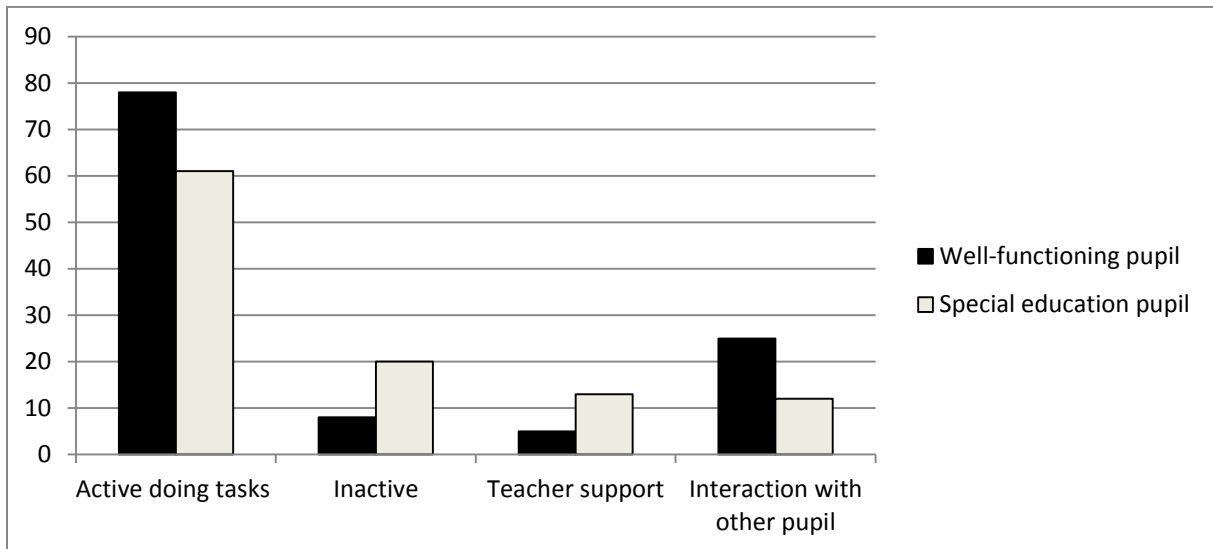


Figure no 4.