

# What special education is about

A joint research project between Hedmark University College (HUC) and Volda University College (VUC), November 2011

## Relevance

The ultimate aim of special education is to maximise individual learning and development. Special education has recently been evaluated when it comes to volume, reason, organisation and results (Nordahl & Hausstätter, 2009). The findings in the evaluation are mainly in accordance with recent research in the field. The most striking results are dilemmas or contradictions. Years ago, Hans Jørgen Gjessing formulated the main dilemma in special education as follows: "Special education is useless, it can be harmful, it segregates, and it helps thousands of children who otherwise would not have been helped for their learning difficulties" (Gjessing, 1974, p. 9).

From this comes a need better to understand special education, a necessity that has been raised in research both nationally and internationally (Haug, Tøssebro, & Dalen, 1999; Skrtic, 1995; Thomas & Loxley, 2007; Egelund & Tetler 2009; Slee 2011). In Norwegian education policy, these issues have recently been addressed in several ways, reflecting the same uncertainties and questions (Kunnskapsdepartementet, 2011; NOU 2009:18). With this as a starting point, the project's principal research question is: *What is special education about, and what is its function?*

The study is concerned with the following variables and research questions, all seen in relation to the situation in general education: How is special education conceptualized in practice, and how does the actual conceptualizations differ from general education? Which categories of pupils are recruited into special education, and which categories are not? How is special education organised, and what is the relation between special and general education? What characterises the teaching in special education compared to regular teaching? What are the outcomes of special education compared to regular teaching? As will be seen, earlier research has produced data about some of these five areas. We intend to analyse the relationships between them, discussing the relative importance of each of them in relation to outcome measures for the pupils and the function of special education. This type of analysis has never been done before.

This research will deal with four groups of pupils receiving special education in accordance with § 5.1 in the Education Act: pupils with behavioural problems, dyslexia, dyscalculia and language minority pupils receiving special education.

The research proposal addresses several central topics outlined in section 2 and section 4 in the "Programme for practice-based educational research (PRAKUT)." The project deals with learning processes and learning outcomes in special and general education respectively for two different age groups in school. By gaining better insight into how special education functions in relationship to general education, it should be possible to improve the quality of both educational processes and outcomes, in order to meet societal challenges and improve the prospects for individual and collective development.

## Aspects relating to the research project

### *Background*

While 5.4 % of the pupils received special education in 2004, the proportion in 2010-11 has increased to 8.4 %, or a total of 51,853 compulsory school pupils. Today about 18 % of available lesson resources are allocated to special education. This quite noticeable increase has come about despite the intention of the 2004 Norwegian parliament to reduce special

education (Det kongelige utdannings- og kunnskapsdepartement, 2004). At the same time, the need for special education may be even higher. According to teachers and parents, this could add up to more than 20 % of the pupil population (Johnsen, 2008; Nordahl & Hausstätter, 2009). One third of pupils do not complete upper secondary school, and low achievement from compulsory school predicts who is in danger of dropping out (Markussen, Frøseth, & Sandberg, 2011; NOU 2009:18).

### *Definition of special education*

The legal definition of special education is clear, and is regulated by the Education Act and the Public Administration Act. Pupils should receive special education only when it is made clear that they do not benefit sufficiently from general teaching. Diagnoses or other categories of impairment are irrelevant in such cases. When it comes to actual substance, it is more difficult to define special education. One approach is that when general education proves insufficient for pupils' learning, special education is activated (Persson, 1997). The problem with such definitions is that the focus is on the pupil's benefit alone, rather than the educational activity. A recent study defined special education in comparison to general education in terms of three factors compiled from teachers' answers on a questionnaire (Bele, 2011):

(1) a different content, different objectives and working methods (2) a closer teacher-pupil relationship (3) greater experience and competence of teachers. The actual importance of these factors is a question to be studied. Gjessing's view was that much special education was not substantially different from general education. The differences between the two was in many cases only administrative and economic (Gjessing, 1974). This is exactly in line with what Persson (1997) found in Sweden, giving support to a theory about the dual functions of special education (Emanuelsson, 1977). Firstly, it provides ways to assist pupils with learning difficulties. Secondly, it helps teachers who do not sufficiently master their teaching tasks by moving pupils from the mainstream classes to more or less regular teaching elsewhere. This is also a part of the special education paradox; pupils who do not fit into the standard school programs are squeezed into special education (Skrtic, 1992).

### *Recruitment to special education*

Recruitment to special education varies considerably, from 0 % at some schools to 20 % at others. Some pupils not receiving special education in school nevertheless display the same characteristics as those who do receive special education (Nordahl & Hausstätter, 2009). Further, twice as many boys as girls are considered as having special needs, while the amount of special education also increases with the age of the pupils.

However, it has been shown that schools with low pedagogical quality offer more special education than schools that function well (Nordahl & Hausstätter, 2009; Nordahl, Mauserhagen, & Kostøl, 2009). Thus, when the quality of regular teaching is high, the need for special education is reduced (Bachmann & Haug, 2006). The number of children in special education could then be an indication of teachers' competence and/or schools' quality. The Office of Auditor General has expressed serious concern about these matters, maintaining that they indicate inequality and a lack of social justice, strongly in contrast with political will.

The largest groups of pupils receiving special education are those categorised as having "behavioural problems", together with those with dyslexia and dyscalculia. What counts as behavioural problems and how they are met, however, differs considerably between schools (Nordahl & Sunnevåg, 2008). Still, an individualised understanding is prevailing through an inclination to acquire individual diagnosis rather than seeing behaviour as related to the societal, cultural and learning environment. As existing research mainly looks into the organisation of the lessons or tries out interventions to reduce disturbing behaviour, there is a

need to closely examine the nature of the teaching and learning that actually takes place for this group of pupils (Greene, 2008).

Reading and writing competences have been debated in recent years, not least because of studies showing that Norwegian pupils have lower achievement scores on international tests than what have been expected (Kjærnsli & Roe, 2010; van Daal, Solheim, Gabrielsen, & Begnum, 2007). Research indicates that as many as one third of the Norwegian population 16 – 65 years of age are functionally illiterate (Gabrielsen, Haslund, & Lagerstrøm, 2005). A majority of pupils receive special education due to their reading and writing difficulties (Elvemo 2002). There is a lot of research on the nature of reading (Austad 2003, Kulbrandstad 2003), about the reading process (Høien 2003), about difficulties in reading (Elbro 2007) and about how these difficulties should be prevented (Frost 1999). There are also many recommendations about what educational measures should be implemented for pupils with literacy difficulties and dyslexia (Høien & Lundberg 2000, Frost 2003). There is less knowledge, however, on how special education in reading and writing is practiced and what the characteristics of teaching in special education for pupils with reading and writing difficulties are, compared to ordinary teaching.

Much is known about the types of problems experienced by pupils who struggle with mathematics (Sjøvoll, 2010; Lunde, 2010; and Ostad, 2008). We know far less about which measures work for pupils with difficulties in mathematics (Lunde, 2010). Many of these pupils receive some of their lessons as special needs education. But as we know relatively little about how this type of teaching is practiced, we want to study the contents of the special needs education in mathematics more closely. During lessons of regular mathematics teaching, pupils spend a great deal of time working with exercises (Eikrem, Grimstad, Opsvik, Skorpen, & Topphol, forthcoming 2011; Skorpen, 2006; Topphol, forthcoming 2011). Most of this work consists of individual task work. Is this also true in the case of special education? Is special education only “more of the same,” or is it qualitatively different? Ostad (2008) claims that pupils with dyscalculia have few and primitive strategies available for solving mathematical problems. Does special education facilitate the development of various and richer strategies?

Within all these three groups of pupils in special education, there is another specific group, namely linguistic minority pupils. They have been overrepresented in the categories of students receiving special needs instruction both within the mainstream context and in segregated groups (cf. Nordahl & Sarromaa Hausstätter, 2009; Nordahl & Overland, 1998). At some schools in Oslo, more than 50 % of linguistic minority students have received special needs education at times (Oslo kommune, 2004). Special education for this group of pupils may however be controversial. One challenge is related to determining whether their learning difficulties are due to special needs or to their lack of competence in the Norwegian language and culture (Aagaard, 2010; Cummins, 1984; Pihl, 2010; Øzerk, 2007). Another challenge therefore is related to how these children’s language competences are dealt with in special education.

### *Special education activities*

Adapted education, covering general and special education, is a principle encompassing the education of *all* pupils in primary and secondary education (Education Act § 1.3). Special education should thus be even more adapted to each pupil than regular teaching. A dilemma is that we do not know if this is indeed the case. What is defined as special education in one school could be defined as ordinary adapted teaching in another (NOU 2009:18). Previous research has mainly been limited to data collection by means of surveys and interviews of

pupils in special education, and their parents and teachers (Grøgaard, Hatlevik, & Markussen, 2004; Grøgaard, 2002; Markussen, Brandt, & Hatlevik, 2003; Markussen, Frøseth, & Grøgaard, 2009; Nordahl & Hausstätter, 2009; Tangen, 2001; Tøssebro & Ytterhus, 2006). Thus, there is little direct knowledge about what actually goes on in special education lessons, how pupils receiving special education are taught, which learning activities they are engaged in, what content they work with or what the learning outcomes are. There is also sparse information about these aspects from the parts of the day or week when they do not receive special education. School cultures affect both special and general teaching. For instance, both regular and special education are affected when learning incentives are low in a school (Nordahl & Hausstätter, 2009). The use of ICT in education is therefore of concern to this study as well. That ICT is a useful tool for learners with various kinds of disabilities has been well documented (Brøyn & Schultz, 2005). We also know that digital media and online communication have become pervasive in young people's everyday lives (Buckingham & Willett, 2006). Although digital technology has opened new opportunities for participation and inclusion, schools have thus far not been able to exploit digital technology to achieve more inclusive education (Krumsvik, 2007; Söderström, 2010). Learners receiving special education often feel stigmatised when using technical aids that are designed for disabled people (Lupton & Seymour, 2000; Pape, Kim, & Weiner, 2002). According to Söderström (2010), these learners therefore prefer using the same technology as the rest of the class. This creates a dilemma for the teachers: using ICT is useful for inclusion and participation at the same time as it may be stigmatising. Unfortunately, we know too little about how teachers use digital tools in special education. Krumsvik argues that ICT can provide new input to the principles of adaptive teaching, but also that there is a growing need to explore the role of ICT in schools (Krumsvik, 2007). For example, there are many unknowns about the relationship between ICT and special education: What is the function of ICT in special education? What are teachers' attitudes toward using ICT in special education? Does the use of ICT promote segregation or inclusion in special education? How do learners experience the way ICT is used in special education? To what degree do teachers in special education have the necessary competence to exploit ICT in special education?

### *Organising special education*

How special education is organised also varies. Most such lessons are given in smaller groups or individually, outside regular classes. According to GSI<sup>1</sup> about 75% of the pupils receive special education during seven or fewer lessons per week. Thus, they are in class without any extra support for more than three-quarters of their time at school. Their experiences in this situation are therefore of interest. The remaining 25% of pupils receive special education in class, with the support of an extra teacher or through other arrangements. It is also worthwhile to study how this is done and functions.

Segregated and inclusive special education generates a great deal of interest, and much has been written about them. Drawing any clear conclusions is difficult (Haug, 2004). Inclusion in education as an educational ideal was introduced in Norway through Reform 97, and may be viewed as increasing learning and participation for *all* in schools (Booth & Ainscow, 2011; Haug, 2003; and Strømstad et al., 2003). Inclusive special education – just as with inclusive education in general – is basically concerned with whether learning and participation increases. Studies indicate that at an abstract level, the support for inclusive education is very strong. A dilemma is that this agreement seems to fade away the closer we come to practical teaching. Many issues are referred to as inclusion, especially in classroom studies, often without emphasising what is meant (Nes, Strømstad, & Skogen, 2004). From this it follows

---

<sup>1</sup> GSI: Grunnskolen informasjonssystem (Compulsory school's information system).

that inclusion may involve many issues (Haug, 2010). Recent research on adapted education shows that most learners profit from being included in a learning community with the rest of the class (Nordahl, 2009). Generally, students are motivated for learning by experiencing what is valued in the group or community in which they are taking part, and they need to feel that they can make a contribution that is appreciated (Dysthe, 1995). Another argument for learning together is seeing *interacting in heterogeneous groups* as a key competence in itself, as does the OECD (2005). Despite the arguments for learning together, individualisation is increasing in many Norwegian classrooms by the use of various "self-technologies" (Klette, 2007), individual computers for all students and increasing segregation of special education (Nordahl & Hausstätter, 2009). There is a lack of research-based knowledge about what goes on in segregated and inclusive special education.

### *Benefit from special education*

Gjessing (1974) described a pressure to give special education to an increasing number of pupils, a worrying development because many of them do not benefit from this offer. This past situation does not much differ from the current situation. The dilemma is that those who receive special education do not necessarily benefit from it. Pupils receiving special education score lower on a range of variables related to learning environment, behaviour and learning content. Such variables include motivation, work effort, well-being, relations to fellow pupils, and occurrence of bullying (Nordahl & Hausstätter, 2009; Solli, 2005). On the other hand, pupils receiving special education have better relations with teachers, experience more encouragement in teaching situations and report a more positive learning environment than other pupils (ibid). In one study, half of the children with developmental disabilities and learning difficulties report that they are lonely at school. They are teased and bullied more than other pupils. Only two out of ten in this group report that they feel included (Tøssebro & Ytterhus, 2006). In general, doubt about whether children benefit from special education has been raised (Kavale & Forness, 1999). Several explanations have been offered. Pupils receiving special education are very complex group. When they are studied together, differences within this group cause a validity problem. Differences in reasons and measures could interact in such a way that benefits add up to zero. Moreover, issues associated with special education very often are highly ideological and value-laden, and may influence analyses of research results (Haug, 2004). Lowered expectations, self-esteem and aspirations could result from becoming a special education pupil. This is true not only for the pupils concerned but also for the people closest to them, such as parents, teachers and friends (Stangvik, 1979). Another view is that special education is a complex area both when it comes to recruitment and provision. No differentiation among the various facets of special education will thus give a blurred picture (Det kongelige utdannings- og kunnskapsdepartement, 2004).

### *Approaches, choice of method*

Due to the previously mentioned complementary nature of special education and general education, the former is viewed here in relation to the latter.<sup>2</sup> The design for the study will address all these issues. We adopt a three-level model:

- (1) The situation in special and general education in relation to definition, recruitment, organisation, teaching processes and achievements.
- (2) Experience and valuing the situation in special and general education in relation to the same set of variables as in point 1.
- (3) Functions and explanations of special education.

---

<sup>2</sup> The concepts special education and ordinary education refer to § 5.1 in the Education Act.

The first level is descriptive and deals with how these different aspects are organised and with what result. It is studied by interviews, observations, questionnaires and by achievement tests. The second level describes the different actors' experiences with "how it is," studied by a combination of interviews and questionnaires. The third level is an analysis of the results from two previous levels.

In order to solve some of the challenges associated with the variation within the special education populations, the sample of special education pupils will be made up of three groups: pupils with behavioural problems, pupils with dyslexia and pupils with dyscalculia. These three groups account for 60% of pupils receiving special education (Nordahl and Haustätter, 2009). Within this group, we also will identify a fourth group of interest here, linguistic minority pupils receiving special education.

*Method*

In this project measurements will be taken at two different times to study the development and learning results of pupils receiving special education. This can be regarded as a pre-post design, even though separate control or comparison groups comprising pupils with the same learning conditions will not be employed. However, pupils receiving special education will be compared with pupils not receiving special education on the aspect of progress in both academic and social learning outcomes. The interval between the two measurements will be used for observations and interviews with the purpose of obtaining knowledge about goals, content, work methods and organisation in special education and regular education. This design to be used in the research project is shown below:

	2012	2013	2014
Mapping of pupils receiving regular and special education	_____		_____
Observation of regular education and special education		_____	
Questionnaires and interviews with pupils receiving special education, their parents and teachers		_____	

**Table 1: Design of research project**

Through this design, it is intended to study the progress made by special education pupils using concrete testing of the learning outcomes. The progress here will be compared to the learning progression experienced by pupils not receiving special education. At the same time, both special education and regular education will be observed, and pupils and parents will be interviewed and answer questionnaires in order to study the relationship between pupils' learning outcomes and the qualitative aspects of pedagogical practice.

*Sample*

The sample of schools, teachers and pupils will be limited to those local municipalities that have signed contracts to participate in the research project. This will be done because the data collection is so comprehensive as to make using a random sample of pupils or schools impractical. The sample of special education pupils will be made up of the groups of pupils mentioned earlier. The overall aim is to obtain a sample of 200 pupils who are receiving special education within these three pupil groups. In order to get this large a sample of special education pupils, the total number should therefore be 3,500 pupils. Estimating from figures in previous surveys, these numbers will be split as follows:

Total number of pupils	Dyslexia	Dyscalculia	Behavioural problems
------------------------	----------	-------------	----------------------

3,500	80	40	80
-------	----	----	----

**Table 2: Sample of pupils**

The sample of teachers will depend upon the pupils participating in the study, as they will be the form teachers and educational specialists working with the individual special education pupils. These teachers will provide information through interviews and observation.

*Operationalisation*

In one part of the study the most important variable areas will be linked to the pupils' social and academic learning outcomes. Their academic learning outcomes will be mapped using previously used national tests. The other gauges are well proven in both national and international contexts (Ogden, 2010). There will special focus on mapping social competencies and behaviour displayed in learning arenas. The informants in this mapping process will be the pupils themselves, along with their teachers who will assess the pupils' social competencies and their achievements. These two quantitative mapping surveys will be identical in terms of both the pupil sample and the measuring instruments.

The study of processes in education and special education will be done in the form of observations, questionnaires and interviews. They will be conducted over a year-long period. Students taking their Masters in Education at Hedmark University College and Volda University College will be trained to use the methods and measuring instruments and will then be responsible for a part of the data collection work. The observations will focus on what is actually happening during teaching, in terms of content, work methods, pupil/teacher interaction and the pupil's own activity and involvement in the learning processes. The observation forms will be structured and, as far as possible, be based on descriptive criteria. Both institutions have long experience with this. Each pupil receiving special education will be observed over 6 lessons (in a combination of ordinary education and in special education), meaning, an entire school day in total. Using forty students, the observations will be split into five days of observation per student.

A video study will be made of special education for the different groups of pupils identified above. The sample of pupils and lessons will be limited. By using video-camera it is possible to focus details in the teaching and learning of these two areas. Using video allows the researcher to describe and code teaching and learning in great detail, and will be a rich supplement to using live observations. Responsible for this part of the data collection will be the researchers participating in the study.

Pupils participating in the video study will be interviewed as also will their teachers. The rest of the pupils and teachers will answer a questionnaire, both they who receive special education and they who do not. For both, focus will be on their perceptions and experiences of special education and regular education the function and reasoning they experience as being behind or within special education.

**Project organisation, project management organisation and collaboration**

Professor Peder Haug will be project manager. The project will be managed and hosted by Volda University College, in close cooperation with Hedmark University College. (For more information, cf. the grant application form and separate attachment.)

There will be organised a reference group, with members from the two cooperating institutions, from the practice field and from international researchers. They will meet until four times a year to discuss the project developments on different stages, and even take part in national and international workshops organised by the project (cf the grant application form).

Teacher education forms essential elements in both institutions. Special education is central in many former and ongoing research projects at Center for the Studies of Educational Practice (SePU) in Hamar, where professor Thomas Nordahl is the director. A priority research field in the college is 'multicultural schools and kindergartens', and professor Thor Ola Engen is part of the multidisciplinary leading team in this HUC research network, which for many years has published widely nationally and to some degree internationally. At present, there are 7 people working on their PhDs in education at Hedmark University College. At Volda University College an interdisciplinary group consisting of 15 researchers is established with professor Peder Haug as leader. The main issue for this group has been to study teachers' and pupils' activities in school. The group has been especially active doing classroom research, on which they have published. At present, six persons are PhD students in education at Volda University College, of them are three connected to this research group.

Budget (cf. the grant application form). The two cooperating institutions allocate considerable own resources to the project. Volda University College also assigns one internal PhD fellowships to the project. Since the project refers to perspectives in the interdisciplinary teacher education PhD application at Hedmark University College, which is given high strategic priority, the institution will consider linking one of their Ph D students to the project.

### **Key perspectives, compliance with strategic documents**

The research issues behind this application are highly relevant for the internal strategic priorities in both university colleges, both when it comes to studies and research. The project will support the MA studies of Adapted Teaching (HUC) and Special education (VUC). Teacher education comprises essential elements in both institutions.

This area has also been prioritised in the internal research and development strategies for both institutions. The project also relates to several of the challenges indicated in the recent white paper related to special education (Kunnskapsdepartementet, 2011). The results will be significant for policy development locally, nationally and even internationally. Since this area has been sparsely studied, we expect a high potential of new research based knowledge.

The ethical challenges in this study are several, and comprehensive. The study will be carried out according to the current ethical guidelines. We are also dependent upon permission from the Norwegian Data Inspectorate, and require consent from schools, teachers, parents and pupils to be allowed to collect sufficient data.

### **References**

- Aagaard, K. E. (2010). *Den språklige faktor. Pedagogisk-psykologisk utredning av barn med minoritetsspråklig bakgrunn*. Doktoravhandling. Det samfunnsvitenskaplige fakultet, Universitetet i Oslo.
- Austad, I (2003): «Lesing som forståelse»: Austad, I (red.): *Mening i tekst. Teorier og prinsipper i grunnleggende lese- og skriveopplæring*. Oslo: Cappelen Akademiske forlag.
- Bachmann, K. E., & Haug, P. (2006). *Forskning om tilpasset opplæring*. Volda: Høgskulen i Volda.
- Bele, I. (2011). Hva er spesielt med spesialundervisning - slik lærere ser det? In P. Haug (Ed.), *Kvalitet i opplæringa*. Oslo: Det Norske Samlaget.
- Booth, T., & Ainscow, M. (2011). *Index for Inclusion. Developing Learning and Participation in Schools. (3. edition)* Bristol: Centre for Studies on Inclusive Education (CSIE).
- Brøyn, T., & Schultz, J.-H. (2005). *IKT og tilpasset opplæring*. Oslo: Universitetsforlaget.
- Buckingham, D., & Willett, R. (2006). *Digital generations: children, young people, and new media*. Mahwah, N.J.: Lawrence Erlbaum.
- Cummins, J. (1984). *Bilingualism and special education : issues in assessment and pedagogy*. San Diego, CA.: College Hill Press.
- Det kongelige utdannings- og kunnskapsdepartement. (2004). *St.meld. nr. 30 (2003-2004), Kultur for læring*. Oslo: Forfatteren.
- Dysthe, O. (1995). *Det flerstemmige klasserommet. Skrivning og samtale for å lære*. Oslo: ad Notam Gyldendal.
- Egelund, N. & Tetler, S. (2009). *Effector av spesialundervisningen. Pædagogiske vilkår i kompliserte læringsssituationer og elevenes faglige, sociale og personlige resultater*. København: Danmarks Pædagogiske Universitetsforlag.



- Eikrem, B. O., Grimstad, B. F., Opsvik, F., Skorpen, L. B., & Toppol, A. K. (Forthcoming 2011). Åleine eller saman? – Ein studie av arbeidsmåtar i norsk, matematikk og engelsk. In P. Haug (Ed.), *Kvalitet i opplæringa*. Oslo: Samlaget.
- Elbro, C. (2007). *Læsevanskeligheter*. København: Gyldendal.
- Elvemo, J. (2002). *La ordene bli mine. Om lese- og skrivevansker*. Kristiansand: Køber Forlag.
- Emanuelsson, I. (1977). *Utbildning för anpassade*. Stockholm: Rabén & Sjögren.
- Frost, J. (1999). *Lesepraktis- på teoretisk grunnlag*. Oslo: Cappelen Akademiske Forlag.
- Frost, J. (2003). *Prinsipper for god leseopplæring*. Oslo: Cappelen Akademiske Forlag.
- Gabrielsen, E., Haslund, J., & Lagerstrøm, B. O. (2005). *Lese og mestringskompetanse i den norske voksenbefolkningen*. . Stavanger: Nasjonalt senter for leseopplæring og leseforskning, Universitetet i Stavanger.
- Gjessing, H. J. (1974). Om sanering av spesialundervisning, og om alternative tilbud. *Skolepsykologi*, 4, 2-24.
- Greene, R.W. (2008). *Lost at school : why our kids with behavioral challenges are falling through the cracks and how we can help them*. New York: Scribner.
- Grøgaard, J. B. (2002). Integrerte eller segregerte undervisningsopplegg i videregående opplæring: Hvilke gir best resultater? *Tidsskrift for ungdomsforskning*, 2(2).
- Grøgaard, J., Hatlevik, I. K. R., & Markussen, E. (2004). *Eleven i fokus? En brukerundersøkelse av norsk spesialundervisning etter enkeltvedtak*. Oslo: Rapport 9/2004 NIFU STEP.
- Haug, P. (2003). Qualifying Teachers for the School for All. In K. Nes, M. Strømstad & T. Booth (Eds.), *The Challenge of Inclusion: Reforming Teacher Education*. London: Routledge.
- Haug, P. (2004). Hva forskningen forteller om integrering og inkludering i skolen. In J. Tøssebro (Ed.), *Integrering och inkludering*. Lund: Studentlitteratur.
- Haug, P. (2004). Hva forskningen om forteller om integrering og inkludering i skolen. In J. Tøssebro (Ed.), *Integrering och inkludering*. Lund: Studentlitteratur.
- Haug, P. (2010). Approaches to empirical research on inclusive education. *Scandinavian Journal of Disability Research*, 12(3), 199-209.
- Haug, P., Tøssebro, J., & Dalen, M. (1999). *Den mangfoldige spesialundervisninga. Status for forskning om spesialundervisning*. Oslo: Universitetsforlaget.
- Høien, T. & Lundberg, I. (2000). *Dysleksi. Fra teori til praksis*. Oslo: Gyldendal Akademiske. 6.opplag 2009.
- Høien, T. (2003). «Avkodningsstrategier og leseutvikling» I: Austad, I (red.): *Mening i tekst. Teorier og metoder i den grunnleggende lese- og skriveopplæringen*. Oslo: Cappelen Akademiske Forlag
- Johnsen, Å. A. (2008). *Foreldre til elever som strevar si oppleving av samarbeidet mellom heim og skule*. Høgskulen i Volda: Masteroppgåve i spesialpedagogikk.
- Kavale, K. A., & Forness, S. R. (1999). *Efficiency of Special Education and Related Services*. Washington: American Association of Mental Retardation.
- Kjærnsli, M., & Roe, A. (Eds.). (2010). *På rett spor. Norske elevers kompetanse i lesing, matematikk og naturfag i PISA 2009*. Oslo: Universitetsforlaget.
- Klette, K. (2007). Bruk av arbeidsplaner i skolen - et hovedverktøy for å realisere tilpasset opplæring? *Norsk pedagogisk tidsskrift* (4).
- Krumsvik, R. (2007). *Skulen og den digitale læringsrevolusjonen*. Oslo: Universitetsforlaget.
- Kulbrandstad, L.I (2003). *Lesing i utvikling. Teoretiske og didaktiske perspektiver*. Bergen: LNU/Fagbokforlaget.
- Kunnskapsdepartementet. (2011). *Meld. St. 18 (2010-2011) Læring og fellesskap*. Oslo: Kunnskapsdepartementet.
- Lunde, O. (2010). *Hvorfor tall går i ball. Matematikkvansker i et spesialpedagogisk fokus*. Bryne: Info Vest Forlag.
- Lupton, D., & Seymour, W. (2000). Technology, selfhood in a physical disability. . *Social Science & Medicine*, 50, 1851-1862.
- Markussen, E., Brandt, S. S., & Hatlevik, I. K. R. (2003). *Høy pedagogisk bevissthet og tett oppfølging. Om sammenheng mellom pedagogikk og faglig og sosialt utbytte av videregående opplæring for elever med spesialundervisning*. Oslo: Norsk institutt for studier av forskning og utdanning, rapport 5/2003.
- Markussen, E., Frøseth, M. W., & Grøgaard, J. (2009). *Inkludert eller segregert? Om spesialundervisning i videregående opplæring like etter innføringen av Kunnskapsløftet*. Oslo: NIFU STEP, rapport 17.
- Markussen, E., Frøseth, M. W., & Sandberg, N. (2011). Reaching for the Unreachable: Identifying Factors Predicting Early School Leaving and Non-Completion in Norwegian Upper Secondary Education. *Scandinavian Journal of Educational Research*, h 55(3), 225-253.
- Nes, K., Strømstad, M., & Skogen, K. (2004). *En spørreundersøkelse om inkludering i skolen*. Elverum: Høgskolen i Hedmark, Rapport nr. 3 - 2004.
- Nes, K., Strømstad, M., & Skogen, K. (2004). *Inkluderende skoler? Casestudier fra fem ulike skoler*. Elverum: Høgskolen i Hedmark, Rapport nr 14 - 2004.
- Nordahl, T. (2009). Realisering og resultater av tilpasset opplæring i grunnskolen. In T. Nordahl & S. Dobson (Eds.), *Skolen og elevenes forutsetninger. Om tilpasset opplæring i pedagogisk praksis og forskning*. Vallset: Oplandske Bokforlag.
- Nordahl, T., & Hausstätter, R. S. (2009). *Spesialundervisningens forutsetninger, innsatser og resultater*. Hamar: Høgskolen i Hedmark.
- Nordahl, T., & Hausstätter, R. S. (2009). *Spesialundervisningens forutsetninger, innsatser og resultater. Situasjonen til elever med særskilte behov for opplæring i grunnskolen under Kunnskapsløftet* Hamar: Høgskolen i Hedmark.
- Nordahl, T., & Overland, T. (1998). *Idealer og realiteter: Evalueringen av spesialundervisningen i Oslo kommune*. Oslo: NOVA.
- Nordahl, T., & Sunnevåg, A. K. (2008). *Spesialundervisningen i grunnskolen: stor avstand mellom idealer og realiteter*. . Høgskolen i Hedmark: Rapport nr. 2.

- Nordahl, T., Mausethagen, S., & Kostøl, A. (2009). *Skoler med liten og stor forekomst av atferdsproblemer*. Elverum: Høgskolen i Hedmark, Rapport nr. 3 -2009.
- NOU 2009:18. *Rett til læring*.
- Ogden, T. (2010). Familiebasert behandling av alvorlige atferdsproblemer blant barn og ungdom : evaluering og implementering av evidensbaserte behandlingsprogrammer i Norge. Doctoral Thesis. Bergen: Universitet i Bergen
- Oslo kommune, U. (2004). *Språk for felles framtid. Handlingsprogram. Lese-, skrive- og språkopplæring i Osloskolen 2004-2007*.
- Ostad, S. A. (2008). *Strategier, strategiobservasjon og strategiopplæring - Med fokus på elever med matematikkvansker*. Trondheim: Læreboka forlag AS.
- Pape, T. L. B., Kim, J., & Weiner, B. (2002). The shaping of individual meanings assigned to assistive technology: a review of personal factors. . *Disability & Rehabilitation*, 24(5-20).
- Persson, B. (1997). *Specialpedagogisk arbeid i grundskolan. Andra omarbetade upplagan*. Göteborg: Göteborgs universitet. Institutionen för specialpedagogik.
- Pihl, J. (2010). *Etnisk mangfold i skolen: det sakkyndige blikket*. Oslo: Universitetsforlaget.
- Sjøvoll, J. (2010). Lærevansker i matematikk. In R. Haugen (Ed.), *Med vekt på lærevansker* (pp. 155–179). Kristiansand: Høyskoleforlaget AS.
- Skorpen, L. B. (2006). Kunnskapstypar og arbeidsformer i matematikk i begynnaropplæringa. In P. Haug (Ed.), *Begynnaropplæring og tilpassa undervisning - kva skjer i klasserommet?* (pp. 115–152). Bergen: Caspar forlag.
- Skrtic, T. (1992). The Special Education Paradox. In T. Hehir & T. Latus (Eds.), *Special Education at the Century's End. Evolution of Theory and Practice Since 1970*. Reprint Series No. 23.: Harvard Educational Review.
- Skrtic, T. M. (1995). *Disability and Democracy. Reconstructing (Special) Education for Postmodernity*. New York: Teachers College Press.
- Slee, R (2011) *The Irregular School. Exclusion, Schooling and Inclusive Education*. London and New York: Routledge.
- Solli, K.-A. (2005). *Kunnskapsstatus om spesialundervisning i Norge*. Oslo: Utdanningsdirektoratet.
- Stangvik, G. (1979). *Self-Concept and School Segregation*. Göteborg: Acta Universitatis Gothoburgensis.
- Söderström, S. (2010). *Teknologibruk i den digitale enhetsskolen: en pilotstudie av bruk av informasjons- og kommunikasjonsteknologi (IKT) i skolehverdagen for grunnskoleelever med nedsatt funksjonsevne*. . Trondheim: NTNU samfunnsforskning, Avdeling for mangfold og inkludering.
- Tangen, R. (2001). Skolelivskvalitet og levekår - elevers egne erfaringer i møtet med videregående skole. In E. Befring & R. Tangen (Eds.), *Spesialpedagogikk*. Oslo: Cappelen Akademisk Forlag.
- Thomas, G., & Loxley, A. (2007). *Deconstructing Special Education and Constructing Inclusion. 2nd Edition*. Maidenhead: Open University Press.
- Toppol, A. K. (Forthcoming in 2011). Da klokka klang ... In P. Haug (Ed.), *Kvalitet i opplæringa*. Oslo: Samlaget.
- Tøssebro, J., & Ytterhus, B. (Eds.). (2006). *Funksjonshemmete barn i skole og familie*. Oslo: Gyldendal Akademisk.
- van Daal, V., Solheim, R. G., Gabrielsen, N. N., & Begnum, A. C. (2007). *PIRLS. Norske elevers leseinnsett og leseferdigheter. Resultater for fjerde og femte trinn i den internasjonale studien PIRLS 2006*. Stavanger: Lesesenteret, Universitetet i Stavanger.
- Øzerk, K. Z. (2007). *Avvik og merknad*. Vallset: Oplandske Bokforlag.