

TEACHERS' USE OF MOTIVATIONAL UTTERANCES IN SPECIAL EDUCATION IN NORWEGIAN COMPULSORY SCHOOLING. A CONTRIBUTION AIMED AT FOSTERING AN INCLUSIVE EDUCATION FOR PUPILS WITH LEARNING DIFFICULTIES?

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This observational study illustrates how teachers' use of motivational utterances is expressed to pupils with learning difficulties in special education in Norwegian compulsory schooling. The term motivational utterances refers to teacher utterances that can help increase pupils' expectancy of success and task value. Video recordings were made of teachers in special education who were deemed to be proficient in motivating pupils. The results indicate that methods used by teachers to improve pupils' expectancy of success in a subject can be divided into six categories: subject-affirmative praise, subject-oriented behavioral praise, subject-detailed praise, existing knowledge, pupil emphasis and challenging utterances. The results also indicate that the methods used by teachers to increase pupils' task value can be grouped into seven categories: pupil involvement, choice, justification, enthusiasm, downplaying the degree of difficulty, utility value and reward. These categories can raise awareness and serve as inspiration for other teachers, which in turn may foster learning among pupils with learning difficulties. Consequently, the categories and the use of motivational utterances are able to contribute to a differentiated and inclusive education.

This article reports on an observational study conducted in primary and lower secondary schools in Norway. The focus is aimed at illustrating how teachers' use of motivational utterances is expressed to pupils with learning difficulties in special education. The objective of the study is to devise categories that illustrate motivational teacher utterances. The intention of the categories is to raise awareness and serve as inspiration for other teachers, which in turn may foster learning among pupils with learning difficulties. The categories and the use of motivational utterances are consequently able to contribute to a differentiated and inclusive education.

Background

The background to the study can be viewed in conjunction with another observational study, where the quality of mediational teaching was evaluated in four cases consisting of teacher and pupil dyads in primary and lower secondary schools in Norway (Nyborg, 2011; Nyborg, 2008). The term *mediational teaching* is based on Feuerstein's theory of mediated learning experience (Feuerstein, Rand, Hoffman, & Miller, 1980; Feuerstein, Rand, & Hoffman, 1979). Mediational teaching is interpreted as a process by which a teacher mediates a given curriculum using certain categories in interactions with a pupil. The categories are focusing, affecting, expanding, competence, regulation and different. It was concluded that the quality of mediational teaching was low in all four cases. This was due to the lack of diffusion of the teachers' use of the six criteria, particularly in relation to competence and affecting. Competence describes the teacher's expressions of satisfaction with the pupil's behavior. Affecting consists of the teacher's utterances which express appreciation or affect (Nyborg, 2011). The absence of these two criteria indicates that teachers may benefit from learning how they can apply these types of utterances in special education in practice. Accordingly, the focus of this study is aimed at teacher utterances that can motivate pupils with learning difficulties.

Feuerstein's theory encompasses various aspects that can affect individuals' cognitive development (Klein, 2001; Feuerstein et al., 1980; Feuerstein et al., 1979). The criteria under mediational teaching

therefore have rather different content (Nyborg, 2011). This study was only to examine criteria associated with teacher utterances with a focus on competence and affecting-related utterances. The study therefore had to be founded on a theory basis with a narrower focus, which was more closely aimed at qualities characterized by these two criteria. A common denominator for the criteria is that they can help improve pupils' motivation in connection with tasks related to curriculum content (Nyborg, 2011). Theory of motivation was therefore regarded to be a favorable basis for continuing the research based on Feuerstein's theory.

Differentiation and inclusion are fundamental principles for all teaching in Norwegian schools. These principles entail the school actively taking into account, and endeavoring to meet the diversity of children and young persons' different abilities and backgrounds through the teaching that is offered (Report no. 18 to the Storting, 2010-2011). The most important resource for fostering an inclusive education is teachers' pedagogic expertise (Wah, 2010). Various sources have pointed out that motivation is a key element for teachers to prioritize in teaching in order to facilitate pupils' learning (Pressley, Mohan, Raphael, & Fingeret, 2007; Pressley, Gaskins, Solic, & Collins, 2006; Brophy, 2010). This particularly applies to pupils with learning difficulties. Research indicates that pupils with learning difficulties have more problems with motivation than other pupils (Klassen & Lynch, 2007). Teachers can influence the pupils' motivation in various ways (Schunk, Pintrich, & Meece, 2008). One aspect that is significant is the verbal utterances that teachers use in order to foster the pupils' motivation (Klassen & Lynch, 2007; Bandura, 1997). Such utterances can be described as motivational teacher utterances. In view of this, teachers' use of motivational utterances in special education may be a key factor in facilitating an inclusive education for pupils with learning difficulties.

Theory on motivation

A theoretical framework that can provide a valuable perspective in connection with teachers' use of motivational utterances is the expectancy-value theory on expectancy of success and task value (Brophy, 2010; Green, 2002). Within this framework, the theory of Wigfield and Eccles in particular has generated research on academic achievement in classroom settings (Schunk et al., 2008). Here motivation is defined as dealing with and influencing pupils' choice, persistence and performance (Wigfield & Eccles 2002; 2000; 1992). The theory assumes that a pupil's motivation is the result of expectancy of success and task value. Expectancy of success relates to the child's perception of how well he/she will be able to perform a specific task. This applies to expectancy of success in connection with performing a future task as well as the child's perception of success in connection with a task he/she is about to perform in a specific situation. Values in this context relate to how much pupils value working with specific curriculum content.

Wigfield and Eccles have conducted several longitudinal studies with a large number of pupils, where they have studied the pupils' expectancy of success and values in the subject's mathematics and English. They discovered that the pupils' expectancy of success and value of the subjects at a given point in time could be related to future academic achievements and choices made in fields of study (Wigfield & Eccles, 2000; Wigfield & Eccles, 1992; Meece, Wigfield, & Eccles, 1990). According to the studies, by attempting to stimulate pupils' expectancy of success and valuing of subjects, teachers will be able to help influence and improve pupils' learning (Shunck et al., 2008). Thus, this theory can be described as a favorable basis for studying teachers' use of motivational utterances.

Wigfield and Eccles' theory has only previously been used to a limited extent as a basis for studying teachers' use of motivational utterances. However, an observational study was carried out by Green (2002), who described how two competent teachers used motivational utterances in their teaching. In this connection, Green developed categories for expectancy of success and task value. Green's study was helpful, and provided inspiration for this study. However, her study was conducted in ordinary classroom settings and in an American context. The categories developed by Green were therefore not considered to be directly transferrable to special education in Norway.

Research question

The study seeks to answer the following question: *How is teachers' use of motivational utterances expressed to pupils with learning difficulties in special education?* Pupils entitled to special education have some sort of learning difficulties that can lead to insufficient learning outcomes in regular teaching. In Norway it is the Educational and Psychological Counseling Service (PPT) in each municipality that makes an expert assessment of whether a pupil has a need for special education. This assessment forms

the basis for an individual decision by the local authority, or the head teacher in the event of delegation (Nilsen, 2011; Education Act (Norway) 1998).

Method

Video was used as an observational tool. Using video in research has a number of benefits (Klette, 2009). Among other things, it provides the opportunity to review records several times. This is useful when trying to identify, as in this study, good examples of motivational utterances.

Selection criteria

A number of selection criteria were defined prior to the study. One of these was that the special education should be organized as teaching in small groups. Group teaching was preferred because this is a form of teaching that is commonly used in Norwegian schools (Report no. 18 to the Storting, 2010-2011). It was also decided that the pupils' learning difficulties should be of a moderate nature. Parts of their teaching should therefore be organized within an ordinary classroom setting. It was further defined that the pupils should be at primary school. Then it was decided that the special education should consist of teaching in Norwegian and mathematics. The reason for this is that teachers' motivational utterances can encroach on subjects. This is supported by Green (2002), who observed teaching in mathematics and literacy in her study. The teaching topic within the subjects was not specified. Prior to the observations, the teachers were asked to carry out the teaching as normal, and they were not to prepare any specific curriculum content. The terms *curriculum content* and *tasks* are used here in connection with the teaching topics and content areas that the teachers and pupils worked with.

Since the objective was to illustrate how teachers use motivational utterances, it was important to use teachers who could be assumed to be proficient in motivating pupils. The PPT in a large municipality was therefore contacted. The PPT has contact with many schools and teachers, and will therefore have an overview of competent teachers who carry out special education. With the help of PPT, I eventually found two teachers who were willing to take part.

Teacher A was a qualified general teacher and had further education in special education. She had many years of teaching experience and was responsible for the special education of a group of pupils in the 4th grade. All of these pupils had special education in Norwegian and mathematics. The frequency could vary, but at the time of the observations the group had special education three hours a week. Teacher B was a qualified pre-school teacher and special education teacher. She had been teaching for more than 10 years. Teacher B carried out special education for two groups that were observed. One of the groups consisted of three pupils in 6th grade who received special education in Norwegian two hours a week, and one English lesson. The other group was made up of three pupils in 6th grade who received special education in mathematics two hours a week. A total of eight video recordings were made of the special education lessons; four from each teacher, two in Norwegian and two in mathematics. The recordings lasted for 40-50 minutes.

Method for devising the categories

In line with the theory basis of the study, the main criteria that were selected in connection with the term *motivational utterances* were *expectancy of success* and *task value*. The definitions of these are given in the results section. The main criteria and the data material were used as sources for devising the categories. This approach entails a combination of deductive and inductive methods and can be described as analytic induction. Analytic induction is distinguished in that both theory and empiricism form the basis for the research (Patton, 2002).

The practical work was carried out in several stages. The first stage consisted of eight video recordings being made of the special education lessons, transferring them to computer and transcribing them by means of software called Hypertranscribe. Stage two was a thorough review of the transcripts in order to create the categories. When the transcripts contained a teacher utterance that could be classified as a motivational utterance, a definition was devised that was believed to be suitable for this utterance. The utterance was also coded with this definition. All similar utterances that were considered to have corresponding content in the data material were coded with the same term. Several categories were created using this method, and many teacher utterances were placed under each of these. The software used for this was called Hyperresearch.

Stage three consisted of quality assuring the categories. Each category was thoroughly assessed in order to confirm whether it had an appropriate name. In addition, all of the teacher utterances that were coded under each category were reviewed in order to determine whether they actually belonged under the relevant category. The objective here was to establish categories that best illustrate motivational teacher utterances and which were also the most mutually exclusive. When the process was complete, a total of 13 categories had been created, and 287 motivational teacher utterances were registered therein.

Stage four was the selection of one example of a coded teacher utterance for each category. Utterances were sought that were the most typical for the relevant group, i.e. those with a generalization value that made it suitable for illustrating the category, and for constituting a basis for forming characteristics for each category. Since more examples of motivational utterances were registered for teacher A than for teacher B, most examples were taken from teacher A.

Stage five consisted of devising characterizations for each category. The purpose of these characterizations was to provide descriptions that further contribute to illustrating the content in the categories. Stage six related to substantiating why a category was considered to belong to one of the main criteria. In this connection, the category was compared with the comprehension of the main criteria.

Results

The results consist of the categories for the main criteria. Characterizations for each category in the form of a title and the associated explanation of what it encompasses are presented below. One example of teacher utterances is then given in each category. The examples appear in dialogue sequences from the video recordings. Finally, reasons are given for the use of the titles and why the categories belong under the main criteria.

Main criterion – expectancy of success

This main criterion relates to the teacher's utterances that are aimed at raising pupils' expectations of success in connection with tasks related to curriculum content. A total of six categories were created under this criterion.

Subject-affirmative praise. This category describes utterances where the teacher only gives positive feedback on the pupils' performance. The example is from a Norwegian lesson given by teacher B. The group is working on distinguishing between single and double consonants (the names are fictitious).

Teacher: Can you read what you have written? ((looking at Julie))

Julie: *Jeg har skrevet på den første (.) det viste seg at alle har kommet til rette* ((reading)) (.) ans

Teacher: An s yes (.) and the second one

Julie: *Line visste ikke hvor hun hadde de to fra* ((reading))

Teacher: Yes, good

Julie: ((looking at the teacher))

The teacher's praise is given in relation to the fact that the pupil has given the correct answer. The praise is therefore associated with the pupil's knowledge of the subject. At the same time, no mention is made of what is positive about the pupil's answer. The praise thus primarily acts as affirmation to the pupil that she has given the correct answer. *Subject-affirmative praise* was therefore chosen as the title. This is a simple form of praise since no details are given of what the praise is for. At the same time, the praise gives the pupil positive feedback on her performance, which can help raise her expectancy of success. Additionally, the praise is brief, and the teacher can therefore move quickly on with the teaching. However, too much of this type of praise will make the pupil too dependent on judging for herself what she has done that deserves praise. This can lead to doubt about whether the praise is justified.

Subject-oriented behavioral praise. The category consists of utterances where the teacher describes the pupil's performance in a positive way and gives a description of the pupil's behavior. The dialogue is from a Norwegian lesson given by teacher A. The pupils have been given several words on pieces of paper, which in combination make a sentence. The pupils are asked to form the sentence.

Robert: I've done it ((formed the sentence))

Teacher: What does it say?

Robert: Ronny is relaxing in his room ((reading his own text))

Teacher: Very good Robert (.) You did that without any help (.) Well done (.) Now you're concentrating on what you should do

Robert: ((looking at the teacher))

The praise is given in relation to the solution to the task, and can be characterized as subject-oriented. In addition, the praise is also linked to the pupil's behavior. This is the background to the term *subject-oriented behavioral praise*. Here the pupil is also given positive feedback on his performance. This can help enhance the feeling of success. Certain aspects of the pupil's behavior are also detailed, which adds to the positive feedback. This can give the pupil a better understanding of why he has been praised. However, over-use of this type of praise may also be unsatisfactory due to a one-dimensional focus on the pupil's behavior.

Subject-detailed praise. This category identifies utterances where the teacher describes the pupil's performance in a positive way and gives details that clarify to the pupil why he has received praise. The example is from a mathematics lesson given by teacher A, where the group is working on a text.

Teacher: How far do they cycle on the second day Frank?

Frank: Err.... 22 kilometers

Teacher: Look at the figures carefully (.) on the second day of cycling

Frank: The second day they cycle 22

Teacher: Does it say 22? ((pointing to the text))

Frank: 27 ((looking down at the text, putting his head in his hands))

Teacher: It was nearly right (.) Do you know the good bit? (.) You looked to see what was wrong and looked for the figures in the text (.) That's exactly the right thing to do Frank (.) You tried to find information (.) I test you sometimes to see what tools you use to find the answer and instead of reading everything you just look for the numbers (.) That was very clever (.) Well done

Frank: ((looking up at the teacher, smiling))

The praise is given in connection with the pupil's answer and can therefore be described as being associated with the pupil's knowledge of the subject. In addition, details are given of why the answer was good. The praise is thus also detailed. *Subject-detailed praise* is therefore a favorable term for this category. This type of praise may lead to a positive learning experience since it is elaborated on with a justification. The justification may mean that the pupil is more likely to believe that the praise is deserved. However, over-use of this type of praise may also be problematic. In some cases, the justification for the teacher's praise will for example be so obvious that expressing it seems unnecessary. The praise may then be perceived as irritating and have little effect. The three types of praise can all contribute to raising pupils' expectancy of success in slightly different ways. However, uncritical use of one of the types of praise could have a negative impact. It can therefore be beneficial to vary the use of praise.

Existing knowledge. The category involves utterances where the teacher points out that the pupils have experience from working with similar curriculum content. The dialogue is from a Norwegian lesson. Teacher A introduces a task where the pupils are given several words on pieces of paper. The words make up a complete sentence, and the pupils are asked to form the sentence.

Teacher: Robert, you were wondering what this is in front of you ((looking at the pupil))

Robert: Yes

Teacher: We have worked a bit on this before (.) Those of you who have been in my reading group are used to seeing sentences that are cut into a string of words (.) What you see in front of you now is sentences that you have not worked with before (.) which you are to put together to form a proper sentence.

Robert: Ah, yes

The teacher points out that the pupils have done this type of exercise before. *Existing knowledge* can thus be a suitable term for this category. When the teacher makes such an utterance, this can help make the pupil feel confident that he will succeed in the tasks that is introduced. Thus, the category can help raise the pupil's expectancy of success in connection with the curriculum content.

Pupil emphasis. This category contains utterances where the teacher draws attention to a pupil by highlighting positive actions or qualities of the pupil in relation to curriculum content. The dialogue is from a Norwegian lesson given by teacher A. The group is working on language awareness training. They are trying to identify several small words within a long word.

Teacher: You can place a line between the words like Robert is doing if you want (.) That's a good way to do it (.)
 Pupils: ((sitting and writing))
 Robert: I'm just writing something
 Teacher: Write it down as you go

We see here how the teacher draws attention to a pupil in connection with a task. *Pupil emphasis* can therefore be a suitable term for the category. When attention is drawn to a pupil in this way it may help the pupil to have a more positive feeling of success. It can also help to improve the other pupils' feelings of success since they compare themselves with the other pupil, and believe they can do just as well. Social comparison can be an important source of stimulating the expectancy of success (Shunck et al., 2008).

Challenging utterances. The category consists of utterances where the teacher challenges pupils to be active in connection with curriculum content. The dialogue is taken from a mathematics lesson. Teacher A has explained fractions and the pupils are working on an exercise.

Teacher: You're now going to show that you have understood it (.) You will be given an exercise ((distributing the exercise sheets)) and I think you'll manage this in no time at all (.) I want to see that you've understood it
 Pupils: ((looking down at their exercise sheets))
 Teacher: Who can read the heading for me?
 Martha and Frank: ((putting their hands up))
 Teacher: Martha
 Martha: How much of the figure is colored (.) Write the fraction
 Teacher: Yes (.) You can start now

In the first assertion, the teacher makes a statement in which she challenges the pupils to solve the exercise. *Challenging utterances* can therefore be a favorable term for the category. An utterance of this type may contribute to the pupils having greater faith in succeeding with the exercise, since the teacher indicates that they are capable of handling the curriculum content. Thus, the teacher's utterance can lead to the pupil having a better feeling of success.

Main criterion – task value

This main criterion relates to the teacher's utterances that are aimed at increasing the degree to which the pupils' value the curriculum content. Seven categories have been created here.

Pupil involvement. This category contains utterances in which the teacher involves pupil input in connection with communicating the curriculum content. The dialogue is taken from a Norwegian lesson. Teacher A is explaining what a factual text is when one of the pupils interrupts.

Teacher: In a factual text you can't give your own opinions (.) You can't write about something that is a belief (.) It must be true (.) What do you want to say Richard
 Richard: Michael is cheering for Galaxy and he also said I bet that Galaxy wins
 Teacher: There are no doubt some who want to say that Galaxy is the best team in the world (.) but the question is whether this is a factual text (.) as it's not certain (.) You don't think that Galaxy is the best team?
 Richard: No
 Teacher: But it may be the case that Galaxy is the best team for one season (.) Then Galaxy must win
 Richard: Yes, but they're at the bottom
 Teacher: Yes but if they are at the bottom now then it's only Michael who believes Galaxy is the best team because he is cheering for Galaxy (.) but our own opinions have no place in factual text (.) What you write in factual texts must be true

The pupil raises a point that appears to be irrelevant to the curriculum content being discussed. The teacher nevertheless manages to incorporate the pupil's input into the curriculum content. *Pupil involvement* can therefore be an appropriate term for the category. When the teacher incorporates a pupil's input it can lead to the pupil valuing the curriculum content more. It can then be demonstrated to the pupil that there is a correlation between the thoughts and ideas that the pupil has, and the curriculum content that the teacher is communicating.

Choice. The category describes utterances in which the teacher gives the pupils the opportunity to make a choice in connection with tasks related to curriculum content. The dialogue is taken from a Norwegian lesson given by teacher A. The group has jointly drawn up a thought map based on a factual text.

Teacher: Ok, I'm finding this really interesting (.) We've now made a thought map where it says much less than the text (.) Do you agree with that?

Pupils: Yes ((all together))

Teacher: Martha, do you want to try and tell us about the spider by reading the thought map

Martha: Okay

The teacher gives her pupil the opportunity to choose whether she wants to perform the task. *Choice* can therefore be a suitable term for the category. When the teacher lets the pupil choose whether she wants to carry out the task it can give the pupil a feeling of co-determination. An enhanced feeling of co-determination can lead to the pupil placing more value on the tasks related to curriculum content.

Justification. This category involves utterances in which the teacher justifies to the pupils the reason for working with curriculum content. The dialogue is taken from a mathematics lesson. Teacher B and the pupils are working with a piece of text when one of the pupils makes an assertion.

Jennifer: You just said that we had to write down how we worked it out on the calculator (.) I didn't understand.

Teacher: If you had to do this exercise you would do it on the calculator (.) What would you do in the calculator? (.) What calculation would you do?

Jennifer: 7.8261 times 120

Teacher: And you would key that in to the calculator wouldn't you?

Jennifer: Yes

Teacher: And then you would get an answer (.) If you then just write the answer in your book then I don't know how you have arrived at this answer (.) how you did it (.) As long as you have understood what you have done (.) then I'm not so concerned with the answer (.) I am more concerned with you writing the calculation down and understanding what you're doing

Jennifer: Okay

The teacher gives a justification here for why the pupil should write the calculation in her exercise book. *Justification* was therefore chosen as a term for the category. When the teacher makes utterances that can be interpreted as a justification for why the pupil should carry out a task, the pupil may gain a better understanding of why it is to be carried out. This can lead to the pupil putting a greater value on the curriculum content.

Enthusiasm. The category consists of utterances in which the teacher expresses enthusiasm in connection with curriculum content. The dialogue is taken from a mathematics lesson given by teacher B, where the group is working on a text exercise.

Teacher: Angelina I thought you were going to write how much they pay for the house

Angelina: Yes, that's what I'm doing

Teacher: You can write it here ((pointing))

Angelina: Okay

Teacher: And how much they pay for the ferry trip

Jennifer: Does it usually cost that much (.) That's expensive

Teacher: Here where it refers to the cost of the house and ferry trip (.) What currency is that?

Pupils: Danish kroner ((all together))

Teacher: Danish kroner yes (.) So we need to find out if it's more in Norwegian currency than Danish (.) It's exciting to see if it will be more expensive

Angelina: ((smiling, looking at the teacher))

In her last statement, the teacher expresses enthusiasm in connection with the curriculum content. *Enthusiasm* can therefore be a favorable term for the category. The teacher's expressions of enthusiasm can be transferred to the pupil. This means that the pupil can also become more involved. This in turn can lead to the pupil putting a greater value on the curriculum content.

Downplaying the degree of difficulty. The category describes utterances where the teacher plays down the degree of difficulty or the amount of work in connection with curriculum content. The dialogue is

taken from a Norwegian lesson. Teacher A is explaining to the group that it is to draw up a thought map based on factual texts.

Teacher: I will now give you a sheet containing various factual texts (.) They're not that long (.) and they're not that difficult (.) I've made sure of that ((distributing the sheets))

Richard: Okay

Teacher: The exercise we will do together is called the spider (.) Can you see the spider on the sheet in front of you?

Pupils: ((finding the right sheet))

Teacher: Good (.) I thought we could read a sentence each (.) and for each sentence I think it would be a good idea to add something to the thought map (.) Do you agree?

Pupils: ((nodding their heads))

In her first statement, the teacher is telling the pupils that the curriculum content, in this case the factual texts they are to work with, is not particularly long or difficult. *Downplaying the degree of difficulty* was therefore chosen as a term for the category. Committing to and starting tasks can take a lot of effort. When the teacher plays down the degree of difficulty of the curriculum content, this can lead the pupils to believe that the curriculum content is less demanding than they had imagined. This can make it easier for the pupil to start the work. Thus it can lead to the pupil placing a higher value on the curriculum content.

Utility value. This category involves utterances in which the teacher highlights the utility value of curriculum content. The dialogue is taken from the same Norwegian lesson given by teacher A as above. The teacher is explaining to the group that it is to draw up a thought map based on factual texts.

Teacher: Today we are going to train more on thought maps and factual texts (.) and training on these is very useful (.) You will be going up to 5th grade (.) where it's beneficial to fully understand how to use thought maps (.) Do you remember that I said in the last Norwegian lesson that if you are studying for a test (.) you will have read a factual text (.) Do you remember that I asked that if you do a good job with the thought map (.) what can it be beneficial to study for the test?

Pupils: ((looking at the teacher))

Teacher: Does the whole text have to be read or is it sufficient to read the thought map?

Richard: Only half has to be read

Frank: No, the whole factual text has to be read

Teacher: You need to read the whole factual text (.) but if you have done a good job (.) you have read the factual text (.) you have also made a thought map based on the factual text (.) and you will also study for the test

Richard: Then it has to be read

Teacher: I'll show you afterwards that if we do a good job with the thought map it can be enough to just read the thought map (.) and still take in all the details (.) but you need to do a good job (.) Isn't that a good idea?

Pupils: ((looking at the teacher))

We see here how the teacher highlights the benefit of creating a thought map. *Utility value* can therefore be a suitable term for the category. Such utterances can lead to the pupil gaining a better insight into how the curriculum content they are working with can be of practical use. This can lead to the pupil putting a greater value on the curriculum content.

Reward. The category consists of utterances where the teacher gives the pupils rewards in connection with work on the curriculum content. The dialogue is taken from a mathematics lesson given by teacher B. The group is working with a text on currency and conversion from Norwegian to Danish kroner.

Belinda: But it was me the last time

Teacher: What do you mean?

Jennifer and Belinda: Milk

Teacher: Oh yes, you got the milk (.) Okay, what do we do now to find out what the Danish house costs, can you tell me?

Jennifer: Yes

Teacher: What does it say that I know (.) Jennifer ((pointing to the sheet where the pupil has written))

Jennifer: I know that the house costs 4,570

Teacher: Danish kroner (.) How much is it in Norwegian kroner (.) Can you write down the calculation? (.) The first person to find the answer can write it on the blackboard

In the last statement, the teacher is offering to reward the first one finished by writing the answer on the blackboard. *Reward* can therefore be an appropriate term for the category. When the teacher makes such a statement it can lead to the pupils wanting to get the reward. This can lead to the pupils putting greater value on the work with the curriculum content.

Discussion

Motivational utterances and special education as a contributor to differentiated and inclusive education

The aim of the study has been to devise categories that illustrate motivational teacher utterances. The intention of the categories is to raise awareness and serve as inspiration for other teachers, who in turn may foster learning among pupils with learning difficulties. Consequently, the categories and the use of motivational utterances may contribute to a differentiated and inclusive education. Use of the term inclusive education in this context can be problematic due to the fact that opinions on what can be characterized as inclusive education vary. Inclusion is often associated with the physical localization of where pupils with learning difficulties are taught (Wah, 2010). A one-dimensional focus on such an interpretation will mean that the understanding of the concept of inclusion will be closely linked to the organization of the teaching. This study has focused on special education organized as small-group teaching of pupils with learning difficulties. Some may maintain that this form of organization is exclusive and not inclusive since the pupils in the group are physically separated from their peers. However, inclusion should be given a broader interpretation than only relating to the organization of the teaching. Inclusion should instead be understood as a continuous ongoing process (Sebba & Ainscow, 1996), which relates to ensuring that all children, regardless of individual needs, receive a good quality education that is in line with their abilities and aptitudes. This entails pupils' education in an inclusive perspective being organized in different ways (Kilanowski-Press, Foote, & Rinaldo, 2010; Scruggs, Mastropieri, & McDuffie, 2007). In this study, parts of the pupils' education are organized outside the classroom since they have a need for closer follow-up by teachers and an individual differentiated teaching plan. The intention is to enable participation in ordinary education in the longer term. In line with a process-oriented understanding of the concept of inclusion, this special education will be aimed at and contribute to an inclusive education.

With regard to adapting education to pupils with learning difficulties, taking the pupils' motivation into account can be a crucial factor. Pupils with learning difficulties struggle more with motivation than others. In view of this, teachers' use of motivational utterances can play a key role in improving the pupils' motivation (Klassen & Lynch, 2007). Raising the awareness of teachers in relation to the use of motivational utterances can therefore be an important contributing factor to fostering an inclusive education for pupils with learning difficulties.

Limitations

There are various components that can play a role in fostering motivation among pupils which are not discussed in this study. This can be illustrated by Bandura's (1997) motivation theory on expectancy of success (self-efficacy theory). The term expectancy of success is understood in the same way as in the theory of Wigfield and Eccles. However, Bandura's theory omits the value component (Wigfield & Eccles, 2000; Anmarkrud & Bråten, 2009). According to Bandura (1997), pupils' expectancy of success can be affected by mastery experience, comparison with others (vicarious experience), verbal feedback (verbal persuasion) and physiological and emotional reactions. The most meaningful of these is mastery experience. Mastery experience is where pupils experience success in connection with the tasks they are working on. One key prerequisite for a mastery experience is that the tasks are adapted to the pupil's level, thus enabling them to master the tasks (Nilsen, 2008). Teachers' planning, adaptation and application of curriculum content will therefore be a key component in relation to pupils' motivation (Dolezal, Welsh, Pressley, & Vincent, 2003). Adapting the curriculum content is not discussed in this study. This can illustrate that the study only examines a component that can affect pupils' motivation. Several aspects of the teaching that can contribute to fostering motivation have therefore been omitted.

A further limitation has also been made. Using video recordings enables us to witness both the participants' verbal utterances and non-verbal behavior. When devising the categories, only the teachers' verbal expressions were used. Non-verbal behavior may also affect pupils' motivation. Non-verbal behavior was not given priority because using video is a challenge with regard to dealing with the

complexity and volume of data. It will therefore be necessary to reduce the data that is to be analyzed (Klette, 2009). In principle, it is easier to devise categories for verbal utterances than non-verbal behavior since interpretations of visual expression are methodologically complicated (Silverman, 2006), and the interpretation of non-verbal behavior is subject to the observer's personal predispositions or biases to a greater extent than verbal expression (Gall, Gall, & Borg, 2007). Only using verbal utterances in the categories was therefore deemed to be a necessary limitation.

It may be questioned why video was used as an observational tool when the teachers' non-verbal behavior is omitted. It is due to a desire to ensure that the categories were devised on the basis of teaching situations where the pupils seemed to understand the teachers' verbal utterances. The pupils' non-verbal behavior demonstrated on the video recordings helped confirm that this was the case.

The limitations above are at the expense of elucidating several aspects of teaching that are significant to the pupils' motivation. On the other hand, all research work entails limitations in relation to the phenomenon being studied. If this was not the case, requirements for transparency and candor in the research process would be difficult to meet (Gall et al., 2007). Accordingly, this study has limited itself to certain sub-aspects of motivation.

Applicability of the results

The intention of the categories is to raise awareness and serve as inspiration. Raising awareness relates to the categories contributing to other teachers being more aware of how, and to what degree, they use motivational utterances in their teaching. To what extent this is the case is seen in the applicability of the results (Gall et al., 2007). Since the study was solely based on observations of special education carried out by two teachers, we cannot know for certain whether the categories will have such a function. We do not know if they have the right content and scope to be suitable for other teachers. However, precautions were implemented to increase the applicability of the results. The teachers were selected because counselors at the PPT believed they were proficient in motivating pupils. They were therefore selected based on specific qualities. A selection strategy of this nature can be described as a purposeful sampling (Gall et al., 2007; Patton, 2002), and is commonly used (Pressley et al., 2007; Pressley et al., 2006; Green, 2002; Wharton-McDonald, Pressley, & Hampston, 1998). The video recordings showed that the teachers combined used a substantial amount of expressions with varying content that can be described as motivational utterances. It is likely that the selection strategy contributed to the categories having a scope and content that makes them suitable for raising the awareness of other teachers with regard to the use of motivational utterances in their own teaching. Hopefully the categories can therefore inspire teachers to develop an even more inclusive education.

Implications for research

It has been pointed out that the motivation theory of Wigfield and Eccles (2000; 1992) has previously been used to a very limited extent as a basis for illustrating teachers' use of motivational utterances in special education. In this regard, the study can hopefully inspire other researchers who want to highlight how teachers can help to improve the motivation of pupils with learning difficulties.

A likely continuance of the study is to apply the categories in a quantitative observational study. The use of categories and a coding scheme in educational research gives opportunities for comparing teaching practices across different contexts, and can therefore contribute to knowledge building and knowledge accumulation within the field of investigation (Klette, 2009). In accordance with this, using the developed categories in a quantitative observational study may contribute to valuable knowledge about teacher's use of motivational utterances in different special educational contexts. The aim of the study will be to illustrate how frequently teachers use motivational utterances in general, and how often they apply the different categories to pupils with learning difficulties in special education.

Conclusion

Teachers' motivational utterances can be crucial to improving the motivation of pupils with learning difficulties in special education. This study illustrates how teachers' use of motivational utterances is expressed to pupils with learning difficulties in special education. The results show that teachers' methods of increasing pupil's expectancy of success can be arranged into six categories: subject-affirmative praise, subject-oriented behavioral praise, subject-detailed praise, existing knowledge, pupil emphasis and challenging utterances. The results further indicate that teachers' methods of increasing pupils' task value can be grouped into seven categories: pupil involvement, choice, justification,

enthusiasm, downplaying the degree of difficulty, utility value and reward. The purpose of the categories is to raise awareness and serve as inspiration for other teachers, who in turn may foster learning among pupils with learning difficulties. Consequently, the categories and the use of motivational utterances may contribute to a differentiated and inclusive education.

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