

The second-language pupil, reading tests and literature-based teaching¹

Abstract

What does the Norwegian national reading test measure when it assesses pupils who are second-language speakers of Norwegian? In this article, we analyse data that show that a high total score in national reading tests correlates with a high morphological awareness and understanding of “opaque” expressions, like polysemes, idioms and metaphors. In the light of international research, we suggest that the connection is causal: The understanding of morphology and opaque expressions in the reading language is a prerequisite for a high reading score. The national reading test was designed for first-language pupils. It is meant to measure reading comprehension defined as the ability to find, interpret and reflect on information in texts. When second-language pupils—who often have low morphological awareness and low understanding of opaque expressions in Norwegian—sit this test, a problem of validity arises. Hence, it is imperative that the second-language pupil’s test results are interpreted and followed up on. We argue that the teaching of reading should be literature based, where pupils read novels and non-fiction that they find interesting, at their own level. A literature-based approach to reading helps the second-language pupil develop morphological awareness and knowledge of opaque expressions, while the reading itself motivates further reading.

Keywords: second-language pupils, reading assessment, morphology, opaque expressions, literature-based teaching of reading

Introduction

For some time, Norwegian schools and teachers have been encouraged by the education authorities to be careful when assessing second-language pupils’ skills by using Norwegian language material:

The use of assessment materials in Norwegian must [...] always be carefully considered in relation to linguistic minorities. If one chooses to use such materials, one must be aware that the results will have to be evaluated individually. (Ministry of Church Affairs, Education and Research 1999:115, our translation)

Nevertheless, every year, a large number of pupils with Norwegian as their second language are assessed using what are known as diagnostic tests and national reading tests in Norwegian (The

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Norwegian Directorate for Education and Training [NDET] 2013). Second-language pupils' average score on these tests are low (Østberg et al. 2010). The rate of testing and the poor results both indicate that the recommendations from 1999 have not been heeded. Currently, the rules for exemption state the following:

[...] pupils who have been assessed to need [...] additional language support are *not automatically exempt* from diagnostic tests. The school owner [the commune] shall, in cooperation with the pupil's teacher, make a particular and individual assessment as to whether the pupil's results may be of use to the teacher in tailoring the teaching (NDET 2013, their emphasis, our translation).

How this 'particular and individual assessment' should be carried out is not specified, nor are the criteria upon which an exemption from the reading tests would be granted. In this article, we discuss what kinds of abilities in the second-language pupil should be 'carefully considered' and included in 'a particular and individual assessment'. In the final section, we argue for a suitable pedagogical response to the test results of those second-language pupils who do sit the tests.

We analyse the diagnostic tests for reading used for Years 3 and 5 (8- and 10-year-olds) in Norway from the first decade of the 2000s. The analyses show that the tests require a high linguistic awareness in the Norwegian language, particularly with regard to its phonology and morphology. We analyse reading tests from a class of mainly second-language pupils. We correlate the pupils' scores from the reading sections of the diagnostic tests in Years 3 and 5 with their total score in the national reading test in Year 5. Sections of the test that appear to mainly test morphological awareness and particular types of vocabulary have a relatively high correlation with the average total score for national reading tests. Our findings are interpreted in the light of international studies on the relationship between language awareness and reading comprehension. Our study indicates that the connections we find in our data are causal: National reading tests require a high awareness of the aforementioned linguistic areas in the language that is being read. Even so, the national test is not meant to measure linguistic awareness, but *reading comprehension*, operationalised through reading tasks that require finding, interpreting and reflecting on the information provided in texts. When the second-language pupil sits a national reading test, a validity problem arises: The test does not measure what it is intended to measure; rather, it measures the pupil's (low) awareness of the Norwegian language.

In the last part of the article, we point to a possible pedagogical follow-up of these kinds of results gleaned from reading tests. Literature-based teaching of reading can be used as a response to, and take as its starting point, the pupils' actual capability in Norwegian as the reading language.

In this article, we pose two questions related to language and reading: *What do the Norwegian reading tests measure when they are sat by pupils for whom Norwegian is their second language? Which teaching approaches can be of benefit to second-language pupils in the light of what the reading tests actually measure with regard to this group?* In order to answer the first question, we have to establish what the reading tests are meant to measure when used for the target group: pupils with Norwegian as their *first language*.

What are reading tests meant to measure?

With regard to diagnostic reading tests, Engen (1999) states that the tests are meant to give an overview of *word reading skills* and *reading comprehension*. *Word reading* has to do with decoding and understanding on a word level. For the purposes of diagnostic tests, *reading comprehension* is seen as ‘emphasising reading of continuous text and the ability to extract information from the texts that are read’ (Engen 1999:45, our translation). Other academics define reading comprehension as the understanding of more comprehensive, written texts where one is also drawing on knowledge of the world around them (Kulbrandstad 2000; Carlisle 2004; Kuo & Anderson 2006). Word reading skills can be seen as an integral part of reading comprehension, as Anmarkrud and Refsahl (2010) maintain:

[W]e [define] reading comprehension as the process by which the reader *extracts* and *constructs* meaning in a text. [...] Extracting meaning is the extraction of the meaning or information a writer has put into the text. In this process, the reader is faithful to the texts’ literal and literary meaning. This means, amongst others things, identifying words and sentences and actually understanding what they mean. (Anmarkrud & Refsahl 2010:7, our translation)

Diagnostic reading tests are thus designed to measure word reading and reading comprehension. The national reading tests, on the other hand, are constructed with a view to ‘measure the general reading ability of all the pupils in one year group on different levels [...]’ (Roe & Lie 2009:153, our translation). In designing the national reading tests, it is maintained that they are based on the PISA report’s concept of *reading literacy* (ILS, Department of Teacher Education and School Research, University of Oslo 2012). *Reading literacy* in the PISA context includes ‘a wide range of cognitive competencies, from basic decoding, to knowledge of words, grammar and larger linguistic and textual structures and features, to knowledge about the world’ (ILS 2012). Furthermore, reading engagement, or the joy of reading, is a new element in the PISA definition of *reading literacy* for 2009. According to Kulbrandstad (2010:184), *reading literacy* is translated differently in each of the Nordic languages. In Norwegian, *lesekompetanse* (reading competence) and *lesing* (reading) have been used, but also, confusingly, *leseforståelse* (reading comprehension) in some Norwegian reports on PISA. In Danish, *læsefærdighed* (reading skill) is used and in Swedish, *läsförmåga* (reading ability).

On the other hand, the Norwegian national curriculum—known as the Knowledge Promotion (Ministry of Education and Research 2006)—has greatly influenced what the Norwegian national reading tests are set to measure. In the Knowledge Promotion, reading is described as a basic skill across all subjects, and is also dealt with specifically in the plans for each individual subject. In this context, reading, according to Roe and Lie (2009), also comprises decoding and comprehension. Following on from this, *reading comprehension* in the Knowledge Promotion is described as follows: ‘the pupils should be able to find information in texts, understand and interpret what they read and reflect critically and analytically on the form and content of texts, [...]’ (Roe 2010:42, our translation). It is reading comprehension, defined exactly in this way, that is intended to be measured in the national reading tests. Other related skills mentioned above as part of PISA’s *reading literacy*, like decoding, knowledge of words, grammar, linguistic and textual structures and features, knowledge of the wider world and reading engagement, are not explicitly included in the concept of *reading comprehension* which forms the basis of the national reading tests. *Reading comprehension* in the national tests is operationalised in line with the find-interpret-reflect definition (Roe 2010) through tasks in which different texts are read and the

answers to questions are revealed by finding, interpreting and reflecting on the information in the texts.

Thus, the national reading tests are not designed to test direct decoding, language awareness or the awareness of Norwegian words, nor knowledge about the world, included Norwegian culture. However, if a pupil does not have sufficient knowledge in one or several of these fields, there is a danger that they will be tested on precisely that. In Norway, such problems of validity concerning the reading tests are not discussed much, other than by the academics making up the reading test research groups. The exception is Kulbrandstad (2000), who assesses the reading comprehension of sample pupils through reading tests, but cross-references this with other assessment methods. She also points out that a diagnostic test in which the pupils are first and foremost tested on their ability to insert the correct preposition in the right place in a text is (too) narrow a measure of “reading comprehension”. A pupil might get a high score on a test while a more thorough assessment of the same pupil’s reading comprehension shows that the pupil is struggling with both word and text comprehension. Other tests might require the text to be read quickly, thereby rendering slow readers unable to answer the question. In those cases, it is more the pupil’s reading speed, rather than their reading comprehension, that is being tested.

In this article, we explore the question of what the national reading tests measure when they are used to test pupils for whom Norwegian is a second language. We study how certain kinds of language awareness—revealed by the results from sections of the diagnostic tests for reading—correlate with the total score of the national reading test for Year 5. Is the focus of the national reading tests less the extent of pupils’ ability to find, interpret and reflect on information in texts that is being measured than it is their language awareness?

Data, sample and methodological considerations

We analyse two sets of data. On the one hand, we have three reading tests: the diagnostic tests for Year 3 for the academic year 2007/8, and both the diagnostic test for reading and the national reading tests for Year 5 for the academic year 2008/9. The national reading tests are compulsory for all schools. They are carried out under the same controlled conditions throughout the entire country. They are used by the teachers, but the pupils’ reading results are also used in order to rank schools within municipalities, counties and in the country as a whole. The diagnostic tests for reading are carried out by all schools in Norway, but the results are for internal use only, to determine whether a pupil needs more reading support. Some diagnostic tests are compulsory, such as the reading test for Year 3. Other diagnostic tests are not compulsory; rather, it is up to the individual school if it wants to use them, as our participants’ school did with the diagnostic test for Year 5.

On the other hand, we have one school class’ pupils’ answers to three test papers. Here, 90% of the pupils have a first language other than Norwegian, defined as the pupils who themselves report speaking a language other than Norwegian at home (Tonne & Pihl 2012). Half of the pupils have been deemed to need special language support for linguistic minorities and are following the study programme *LÆREPLAN Grunnleggende norsk for språklige minoriteter [Basic Norwegian for language minorities]*, (Østberg et al. 2010). In order to limit our scope, we do not look into the students’ capabilities in their first languages, reading skills in their mother tongues or their different degrees of mastery of Norwegian. However, we note that almost all the

informant pupils were born in Norway and have been attending a Norwegian school since Year 1. As mentioned earlier, pupils may be exempted from the diagnostic tests and the national tests, but none of the pupils with Norwegian as a second language in our informant class were exempt from any of the three reading tests. Some pupils left the class and some new pupils joined between Years 3 and 5, leading to a variation in N in our analysis below.

Engen (1999) reports on the diagnostic tests for reading and their use in research: ‘As is apparent from the descriptive data, the results do not have normal distribution, and for research purposes the significant ceiling effect is a weakness of the test’ (Engen 1999:84-85, our translation). Engen (1999) is here referring to the fact that most pupils in a class achieve a full score on most of the problems set. It can be envisaged that if the test were harder, it would be possible to separate the very best readers from the second-best readers, but as it stands, these now form a large, undifferentiated group. Hence, some problems may present themselves when trying to compare different groups. The diagnostic tests were piloted using what were taken to be representative samples of pupils. Engen (1999) does not mention to what extent pupils with Norwegian as a second language were included in the sample, and neither are second-language issues mentioned anywhere else in the preparatory work, or in the guidelines for the diagnostic tests (Engen 1997). If second-language pupils were not included in the pilot sample, this could explain why our informant class, which mainly consists of second-language pupils, barely reaches the diagnostic test ceiling: They are not the test’s target group, even though they sit the test. Despite this, in two of the sections we find that the informants as a group have almost a full score, something that will be discussed when the findings are examined. In addition to looking at the quantitative analysis, we have been able to look at the individual diagnostic test papers more closely. This qualitative analysis sheds light on the quantitative use of the tests.

The diagnostic reading tests are meant to measure the pupils’ word reading skills and their reading comprehension. It is nevertheless striking how linguistically oriented some of the tasks are. The data in our study is reviewed by linguistically analysing the selected sections of the diagnostic tests. Following this, we use these sections of the tests as a measure of the pupils’ language awareness in Norwegian within the specific linguistic areas that emerge. These scores are statistically compared to the score for the national reading test, which is meant to measure reading comprehension, as it applies to the finding, interpreting and reflecting on information in texts.

Diagnostic tests in reading: A linguistic analysis

The diagnostic test in reading for Year 3 is, as mentioned above, concerned with *word reading skills* and *reading comprehension*. Reading comprehension is tested in text reading tasks in the test paper, while word reading skills are tested with tasks that consist of making connections between a picture and a selected word amongst a list of words given, or between a word and one of many possible pictures, among other tasks. In the same way that Arntzen (2012) and Øzerk (2009) deem the diagnostic tests for reading in Years 2 and 7, respectively, to first and foremost measure language awareness amongst second-language pupils, we too find in our material that some tasks, particularly those meant to test word reading skills, measure language awareness in Norwegian for phonology, morphology and vocabulary. Those “word reading” sections are examined here. These tasks are thus the parts of the diagnostic tests that are *least* similar to the tasks given in the national reading test, since the national reading test consists exclusively of text

reading tasks. Firstly, we briefly define metalinguistic awareness in the same way as the concept is used in second-language research and reading research. Secondly, we look more closely at what level of Norwegian language awareness is required for the chosen sections of the Year 3 and Year 5 tests.

Metalinguistic awareness can generally be described as ‘the ability to reflect on the form of the language and change focus from content to structure’ (Brenne 2005:13, our translation). Metalinguistic awareness is in some contexts defined as the ability to pay attention to linguistic factors (Bialystok 2001). Phonological and morphological awareness are aspects of metalinguistic awareness. Phonological awareness covers ‘a host of metaphonological skills which are used for the processing of the sound structures of the language’, according to the Ministry of Church Affairs, Education and Research (1999:28, our translation). Herein lie two slightly dissimilar, but also related, ways of understanding metalinguistic awareness: one is a general metalinguistic awareness that language has both expression and content; and the other is a more specific awareness of a particular language. Further illustrating this, Carlisle (1995:194) defines morphological awareness as ‘conscious awareness of the morphemic structure of words and [the] ability to reflect on and manipulate that structure’. Such a metalinguistic awareness can be general, so that one is aware that words have structure. At the same time, since languages vary greatly in how words are constructed morphologically, morphological awareness is closely tied to the awareness of word structures in a particular language.

When we look at the specific parts of the diagnostic test for Year 3, we find that they require the pupil to identify morphological connections in Norwegian words. To a certain extent, the pupil is required to recognise the structure in a compound word, but more particularly, the pupil is required to recognise morphological forms for nouns (singular, plural, definite, indefinite) and verbs (tenses). In the problem called *Word to Picture*, where the pupil is asked to choose the correct image for a given word, it is the lexical content of the root word or the compound that the pupil is being tested on in particular. There are no examples of words with derivational morphology. In the problem called *Picture to Word*, the pupil is asked to choose the word that best fits the image being shown. As many as 12 of these problems force the pupil to make a choice between the singular and the plural. Here, many phonological ‘distractions’ (Engen 1999) have been included. In fact, all 30 problems are similar either orthographically or phonetically, requiring phonological awareness in the form of steady decoding skills, and connecting grapheme and sound. The task *Analysis of Compound Words* is described by Engen (1999) as a simplified word chain test. The pupils are asked to separate the two root morphemes in (relatively high-frequency) compound nouns, amongst others *football*, *washing machine* and *house roof* (all three words are written as compounds in Norwegian). Engen (1999) describes morphological awareness as something that is consciously tested.

In the problem called *Sentence Reading*, the pupil is asked to make a connection between a sentence and the picture that fits it best. The name of this problem gives the impression that syntactical awareness is being tested. However, the sentences are not syntactically advanced, but rather a good (inflectional) morphological awareness in Norwegian is needed instead. The pictures differ with regard to the number of things being mentioned and with regard to whether the action is connected to a specific time in the past (past simple) or an undetermined time, while at the same time giving a clear result (present perfect). For example, for the sentence “Petter has picked flowers”, the picture of many flowers in the hands of a child should be chosen.

Furthermore, this problem uses words that are less common (e.g. *pusse tenner*, *seile*, *puslespill*, *reir*, *spurter*, and *skrivemaskin* ('brush teeth', 'sail', 'jigsaw', 'nest', 'sprints', and 'typewriter'), and there are instances of polysemic versions of words and expressions, like children "walking in *train*", used in Norwegian to mean children walking to form a parade.

In the teachers' support documents for the diagnostic test for Year 5, Engen (1997) writes that none of the sections are specifically designed to test metalinguistic awareness (Engen 1997:15). However, we show below how some of the tasks from the diagnostic test for Year 5 require a relatively high metalinguistic awareness, and in particular, morphological awareness and awareness of words for which their meanings cannot be deduced from their constituent parts. The *Word to Picture* task for Year 5 corresponds to the tasks of the same name in the Year 3 test, but in the Year 5 test, every problem given has a single/plural element. The *Picture to Word* problems also correspond with the problems in the Year 3 test. As an example: next to a picture of a rabbit are the words (such as *kaniner*, *kanoner*, *kaminer*, *kanin* ('rabbits', 'canons', 'ovens', 'rabbit')). The pupil is asked to choose the word that best describes both the lexical content and the number pictured.

The *Words in Sentences* problem requires yes/no answers to be given. Some examples are "Kan vi spise ristet brød?" ('Can we eat shaken [toasted] bread?') and "Kan vi hente vann i en skravlebøtte?" ('Can we fetch water in a chatterbucket?' where *chatterbucket* is the Norwegian equivalent of *chatterbox*, and the answer is no). For many of the words in the problems, it is difficult or impossible to use reasoning to find the meaning, and it is hence required that one knows the often culturally specific use of the words already; for example, that 'skravlebøtte' ('chatterbucket') is used metaphorically. "Kan vi spise ristet brød?" requires, on the other hand, knowledge of the two very different meanings of the homonyms *riste* in Norwegian ('move fast up and down' and the more uncommonly used 'cook on a rack'). In other parts of this section, a single word is being tested where that word is derived from the other: "Kan vi bore med bor?" ('Can we drill with a drill?'). *Bore* is derived from *bor*, but you have to know that there is a connection between the two in order to answer correctly. Other words in this section are not derivations, but near-homonyms and metaphorically related polysemes (here, only the examples that are comparable in their English translations are chosen): "Can we ring with a ring?" (no), "Can a bag be baggage?" (yes), "Can we drill with a drill?" (yes), "Can we sew with a pine needle?" (no). Others are just derivations: "Can we knot a knot?" (yes), "Can we post a post?" (yes).

The Year 5 diagnostic test does still partly test—as for Year 3—awareness of inflectional morphology, particularly as it has to do with number declension of nouns. Here, no compound word problems have been included. Phonological awareness is still tested to some degree through the spelling/phonological similarities of *kaniner*, *kanoner*, *kaminer* ('rabbits', 'canons', 'ovens') etc., in the *Picture to Word* problem and the *Word to Picture* problem. The *Words in Sentences* test has been added, requiring awareness of many difficult Norwegian words through derivation, homonymy and polysemy. In neither Year 3 nor in Year 5 is syntactic awareness tested in these sections, and none of the problems give any context to ease understanding. We will now move on to the pupils' test answers to see how the answers to these sections that test metalinguistic awareness correlate with the results for the national reading test.

Metalinguistic awareness and the national reading test: Correlations

The national reading test for Year 5 in 2009 consisted of one booklet with 6 texts and 32 questions, each with a possible score of one point. The pupils' scores were divided into three so-called mastery levels: Level 1: 0-17 points; level 2: 18-25 points and level 3: 26-32 points. The average score in the national reading test for our sample class is 16.8 points, ranging from 6 to 30 within the class. The pupils' scores are distributed between the levels, giving an average mastery level for our informants as a group of 1.6, while the national average is closer to 2.0. In the following, we look at the sections of the diagnostic tests which seem to correlate with the results for the national reading tests for Year 5. The data has been analysed using statistical software SPSS. Table 1 gives an overview of the correlations.

Table 1: Correlations between different sections of the diagnostic tests for Years 3 and 5 and the total score in the national reading test for Year 5.

Section of diagnostic test	Correlation (Pearson's r)	N	Level of significance
Year 3 <i>Picture to Word</i>	0.530	23	0.01
Year 3 <i>Word to Picture</i>	(0.217)	23	Not significant
Year 3 <i>Compound Words</i>	(-0.064)	23	Not significant
Year 3 <i>Sentence Reading</i>	0.483	23	0.05
Year 5 <i>Picture to Word</i>	0.402	28	0.05
Year 5 <i>Word to Picture</i>	(0.081)	28	Not significant
Year 5 <i>Words in Sentences</i>	0.537	28	0.01

We can see that the sections *Picture to Word* (Year 3), *Sentence Reading* (Year 3), *Picture to Word* (Year 5) and *Words in Sentences* (Year 5) correlate statistically with the total score for the national reading test for Year 5. We also see that the section of compound words in the Year 3 diagnostic test does not reveal any significant correlation to the national reading test in Year 5. A look at our informant class' test responses show that the reason why this latter section does not differentiate between the pupils is that all have almost a full score, therefore the ceiling has been reached. The average score is 19.5 (of a maximum of 20). In other words, the pupils master what this section tests, i.e. analysing high-frequency compound words.

When it comes to the section *Sentence Reading* in the Year 3 test, we have argued that this section tests inflectional morphology, like the number declension of nouns and verb conjugations. In the table, we see some degree of correlation between this section and the national reading test. Table 1 also shows that the *Picture to Word* and the *Word to Picture* problems for Year 5 have a lower correlation to reading comprehension as measured through the national test than the

correlation of the same type of problems for Year 3. The numbers suggest that awareness of phonology and morphology vary less between pupils in Year 5 than in Year 3.

When looking at individual replies in the section *Words in Sentences*, we see that morphological derivation presents problems. In particular, the question “Kan vi bore med et bor?” (‘Can we drill with a drill?’) yields many incorrect answers. Additionally, we see a lot of mistakes made in tasks that one might think are about derivations, and hence a semantic-grammatical connection, but that in reality are about polysemes or (near-)homonyms. Our pupils’ average score for this test task was 20.6 (of 25). The critical level has been set to 17 points for this task. Seven pupils scored below this level. The responses indicate that many of our second-language informants struggle with a lack of morphological awareness, and in particular, their awareness of derivations. In addition, they have problems with linguistic awareness of homonyms, polysemes and metaphorical expressions. There is a high correlation between the (lack of) awareness in these areas of the Norwegian language and the results in the national reading tests.

In the discussion below, we will see that wide-ranging international research supports our findings based on the Norwegian reading tests. Our correlations show a connection between morphology and vocabulary, on the one hand, and the results in the national reading test in Year 5 on the other. Various research into the more general relationships between metalinguistic awareness and reading comprehension point to a causal relationship: low metalinguistic awareness in some linguistic areas in the reading language cause reading skills to be low. We will see that research findings are consistent across different languages.

Discussion

Phonological and morphological awareness and reading comprehension

Phonological awareness has long been considered of particular importance to children’s reading comprehension (Aukrust 2005; Stone et al. 2004). Research also shows that morphological awareness plays a big part in reading comprehension, that phonological and morphological awareness affects reading awareness separately and that they may also interrelate (Brenne 2005; Lyster 2002). Furthermore, it is found that morphological awareness takes over as the most important linguistic factor influencing reading comprehension as pupils advance through primary education. Caglar-Ryeng (2010:24) reports on first-language pupils’ reading in English: ‘between Grades 3 and 6, the role of phonological awareness in decoding gradually decreased at the same time that of morphological awareness increased.’

Kuo and Anderson (2006) give three reasons for the strong connection between morphological awareness and the ability to read. The first is that morphology, like reading, has semantic, phonological and syntactical characteristics, as morphemes are both form and meaning in one. The second reason is that the mental lexicon is based on morphemes, that is to say that one uses morphological information when processing complex words, according to psycholinguistic studies for several languages (Clahsen et al. 2003; Harley 2008). The third reason is that morphological awareness can give the reader insight into the languages’ orthographic system. Many orthographic systems—including Norwegian—are based on both phonological and morphological information. For the Norwegian word “brakte” (the preterite of “å bringe”, ‘to bring’), the phonological principle is applied; it is spelt as it is pronounced, not bringing in the g

which is found in other forms of the verb. Morphological information, on the other hand, is included in other words, making the Norwegian words “gått” and “godt” (‘walked’ and ‘good’) different, even though their pronunciation is identical. These two different orthographical principles—the phonological and the morphological—find their counterparts in reading strategies. When a child cracks the reading code, the child reads phonologically. This involves reading each letter, connecting the letter to a sound, and then pulling together the sounds to make an intelligible word. Using the so-called orthographic-morphemic reading strategy, on the other hand, is to read morphemes, complete bits of form and meaning in one: gå+tt (walk+ed) and god+t (good+t) instead of g+å+t+t and g+o+d+t. Competent readers in Norwegian with high morphological awareness will, to a large extent, use the morphologically oriented reading strategy and only deploy the alphabetic-phonemic strategy when parts of the words are unfamiliar (Høyen & Lundberg 2002). Low morphological awareness in the reading language is likely to reduce the use of the orthographic-morphemic reading strategy and increase the use of the alphabetic-phonemic strategy. This slows down the reading and also makes it more difficult to extract meaning because the phonemes are smaller and without meaning, compared to the morphemes which are larger and do carry meaning.

Carlisle (2007) discusses a fourth reason why morphological awareness is closely linked to reading. This concerns the interaction between morphological awareness and the use of context to arrive at the meaning of an unfamiliar word through reasoning: ‘Thus, where morphemes are represented in the mental lexicon, they are likely to work interactively with context clues in the process of inferring meaning’ (Carlisle 2007:83). The factors mentioned above show that morphological awareness in the reading language is important. Such morphological awareness in a second language has to be built almost from the ground up, as it will only be possible, at best, to transfer from the first language an awareness of those morphological structures that also appear in the second language. It will not be possible to transfer the actual nature of these structures (Miguel 2012).

When we look more closely at the different types of morphology, the morphology of inflection correlates with the results of the national reading test for Year 5, to a greater extent for Year 3 and to a somewhat lesser extent for Year 5; in other words, the correlation gradually decreases.

The second-language pupils in our survey can generally analyse compound words by Year 3. Low awareness of derivational morphology in Year 5, however, seems to result in a low score for our informants in the national reading tests, as we can see from the correlation between the diagnostic test problem *Words in Sentences* and the results in the national reading test. These morphologically oriented findings are confirmed repeatedly in international research. Surveys, most of them probing into the acquisition of English, show that the language development of first-language pupils in primary education is such that they first develop an awareness of inflectional morphology and compounds, and derivational morphology thereafter (Kuo & Anderson 2006). The same pattern can be found for the acquisition of a second language, but with a longer delay for the apprehension of derivational morphology. Kieffer and Lesaux (2008) find that awareness of derivational morphology with age becomes increasingly important to the reading comprehension of pupils with Spanish as their first language and English as their second language. Miguel (2012) confirms the aforementioned order for types of morphological awareness and the further delay in developing derivational morphological awareness found in adults learning Spanish as a second language.

Derivational morphemes are more difficult because they have a vague, and often more abstract meaning than roots or inflectional morphemes. An early survey was carried out in Norway by Helga Eng (1912) where she showed that children have a tendency to emphasise the parts of the words that they know and ignore other parts if they are unfamiliar. This often results in children interpreting abstract concepts—often derivations—more literally than they should, for example by interpreting “klokskap” (‘wisdom’) as “klok” (‘wise’) and “længsel” (‘yearning’) as “længte” (‘to yearn’) (Eng 1912:68). Eng’s (1912) observations tie in with more recent studies on morphology, as described above. Derivational morphology seems to make reading more difficult for all children in the lower years, and for second-language pupils higher up in the school (Kieffer & Lesaux 2008; Kuo & Anderson 2006; Miguel 2012). In our study, we see a strong link between a pupil’s level of derivational morphological awareness (in sections of the diagnostic tests) and his or her reading comprehension (national reading test score).

General research into reading casts light on our findings. Reading comprehension, which the national reading tests in Norway claim to measure, seems to presuppose high morphological awareness, and this awareness will, for the most part, have to be acquired in the reading language. We have also seen that our informants have a low score in sections in which they are required to know less-common words and words used figuratively or idiomatically. We will discuss this further below.

Unusual words and opaque expressions

In 1941 and 1943, Arnulv Sudmann (1978) examined 866 Norwegian 12–14-year-olds’ understanding of key words in texts found in school textbooks. He found that on average, only 36% of the key words were understood by the participants, even though they all mainly Norwegian as their first language. Later research into the vocabulary of Norwegian textbooks has shown that textbooks contain quite a few subject-specific terms and other words that are not deemed to be subject specific, but which are only found once (Golden 1984). In Sweden, it has been found that pupils with Swedish as a second language score markedly lower when testing ‘the receptive vocabulary and recognition of words’ (our translation) in the school’s textbooks, so that only 44% of the second-language pupils score in the top third of the scale, compared to 66% of the first-language Swedish speakers (Holmegaard 2007:154). Arnaud and Savignon (1997) examined proficiency in uncommon words and “complex lexical units” in English, including idioms and metaphors, amongst French speakers learning English. They report that through teaching, second-language students improved their understanding of both uncommon words and complex lexical units. However, their understanding of complex lexical units improved more slowly than their understanding of uncommon words.

Carlisle (2004) uses the terms transparency and opacity to describe the ease with which it is possible to derive a word’s meaning from how it is formed and the meaning of its constituent parts. Some words are transparent; the morphemes have an easily recognisable meaning that they bring to the word as a whole, like in *divide* and *divisible*. Other words are more opaque; the morphemes have a less clear connection to the meaning of the word as a whole, like in *inform* (Carlisle 2004:327). Metaphorical expressions and Arnaud and Savignon’s (1997) complex lexical units are often opaque in this regard. In Norway, Kulbrandstad (1998) demonstrates how secondary school pupils with Norwegian as a second language (mis)understand metaphorical expressions when they read textbooks. For example, she shows that the metaphorical expression

medaljens bakside, ('the medal's back side', i.e. the flip side of the coin), when used as the heading for one of the texts the pupils were to read, was not understood by the second-language pupils. As far as the words were comprehended, the word *medalje* was taken literally and led to the misinterpretation of the text that followed. Golden (2005) presents similar results from her extensive research. The second-language pupils she studied had a lower understanding of metaphorical expressions in Norwegian textbooks than pupils with Norwegian as their first language. Within the second-language group, the understanding varied according to their duration of residence. The longer a pupil had lived in Norway, the better he or she understood the metaphorical expressions. Hence, it seems that metaphorical and other standard expressions can be learnt by second-language learners, but with a lot of effort and over a long period of time.

Polysemy and homonymy are other problem areas. It can be said that they too have varying degrees of opacity, depending on how (un)clear the connection between the different meanings of the word. Laufer-Dvorkin (1991) refers to studies that show that it is often difficult for the learner of a language to know whether polysemy or homonymy is coming into play. Bensoussan and Laufer (1984) show that polysemes is the category of words that is most often guessed incorrectly in the reading comprehension process.

We also find opaque words and expressions, i.e. metaphorical expressions, polysemes, homonyms and idiomatic expressions, in our study, particularly in the *Words in Sentences* problems. There, words like *automat*, *ristet*, *bukt*, *erte*, *poeng*, *jubelbrus* and *skravlebøtte*² are included amongst words to be interpreted and compared to seemingly similar words. That there is a connection between low awareness of relatively complex and morphologically opaque words and expressions and low scores in the national reading test is put into a broader context through the research mentioned above. Like morphological awareness, awareness of opaque words and expressions is a prerequisite for reading comprehension.

Summing up

We have found correlations between morphological awareness and awareness of opaque words and expressions, on the one hand, and the national reading test score on the other. These findings are corroborated by a variety of international research in this field. That second-language pupils perform worse than first-language pupils in reading tests in a school's language of instruction is hardly surprising. First- and second-language pupils' linguistic and cultural (dis)advantages affecting their performance in the tests are different. Even so, Norwegian schools still expect second-language pupils' reading comprehension in their second language to be as good as that of first-language pupils. We have pointed out some problems arising from this. A certain level of metalinguistic awareness in Norwegian is a prerequisite to be able to read well in Norwegian.

² *Automat* is used for different types of machines, but *mat* is Norwegian for 'food'; *ristet* means 'shaken' or 'toasted'; *bukt* means 'bay' or 'bight' and is also used in a metaphorical expression to mean to overcome or get the better of something; *erte* means 'tease', but *ert* means 'pea'; *poeng* means 'point' whereas *eng* means 'meadow'; *jubelbrus* means 'shouts of jubilation' where *jubel* means 'jubilation' and *brus* can describe a type of sound but is also in everyday use to mean 'a sweet fizzy drink'; a *barnål* is a pine needle, where *bar* means 'branches of a pine tree', but also has many other meanings in Norwegian, the most common being 'bare' as in 'naked' and a 'counter where you serve drinks'. *Nål* means 'needle'. Segmented differently, *barn* means 'child' and *ål* means 'eal'; *skravlebøtte* is a talkative person where *skravle* means 'chat' and *bøtte* means 'bucket'. It is a metaphor like the English *chatterbox*.

Beyond Year 3, a certain level of morphological awareness and awareness of opaque words and expressions is particularly important.

When we know the specific problems contributing to low scores in reading tests in Norwegian, it gives us the opportunity to put in place suitable pedagogical measures to improve the pupils' reading comprehension, and hence their reading score. In the following, we will outline one such possible pedagogical measure: a literature-based approach to teaching reading. This pedagogical approach strengthens those aspects of the pupils' metalinguistic awareness that have been shown to be connected to reading comprehension and (lower) reading scores. This approach strengthens the morphological awareness and the awareness of concepts by using literature—both fiction and non-fiction—that the pupil is able to read with interest and sufficient understanding. With interest and sufficient understanding, the pupil can draw on the context to expand his or her comprehension; the pupil can work out the meaning of new, slightly advanced, morphological words and opaque expressions by way of reasoning. Moreover, the most important aspect of this literature-based reading approach is that the pupils read a large volume of good-quality literature, providing valuable linguistic and cultural experiences—the authentic use of words in many different contexts—that they especially need in order to improve their reading comprehension.

A literature-based approach to teaching reading

Currently, several didactic models are deployed in the teaching of reading in Norwegian schools. The use of books intentionally produced to suit predefined reading levels (see examples from Aschehoug 2013; Rødtvedt skole 2013) is increasing at the expense of working with authentic literature. Here, we wish to draw attention to authentic literature and to the potential that is inherent in what we call *literature-based teaching of reading*.

Laufer (1992) reports a marked improvement of comprehension in the second language amongst her informants when their vocabulary exceeded 3000 word families (approx. 4800 lexemes). Extending this work, Golden (2009) points out that the help offered by context varies according to the learner's vocabulary. A learner with a small vocabulary will not necessarily benefit as much from the context as a learner with a larger vocabulary, as the context will often contain even more unknown words (see also a study of Swedish beginner readers in Danielsson 2002).

The more words someone knows, the better it seems he or she is able to understand and learn new words, perhaps by being able to understand more words contextually. This phenomenon is often referred to as the *Matthew effect* (Stanovich 1986, referring to the Book of Matthew): 'For unto every one that hath shall be given, and he shall have abundance: but from him that hath not shall be taken away even that which he hath'. We have shown that good reading comprehension requires advanced morphological awareness and a broad and profound knowledge of concepts in the Norwegian language. Only through a sufficiently wide and a deep exposure to the Norwegian language, including culturally determined uses of words and expressions, are we able to understand that we "tie a tie" but do not "fetch water in a *skravlebøtte*" ('chatter bucket'). Pupils with Norwegian as their second language will not necessarily be sufficiently exposed to this language through their oral interaction. How can the school remedy this and help the second-language pupils cease their downward spiral to experience the upwards trajectory of the Matthew effect instead?

Anmarkrud and Refsahl (2010) point out that when most of the words—about 90%—in a text are already understood, it will be possible to decipher new words through reasoning based on the words one already knows. It may be reasoned that the negative Matthew effect could be reduced or disappear with sensitive selection of fiction and non-fiction reading materials, which will enable the pupil to gradually build their awareness of words and morphology. As we shall see, well-chosen literature forms the superstructure of literature-based teaching of reading. Moreover, reading specific pedagogical components aimed at building word awareness and reading strategies may also be included.

Golden and Kulbrandstad (2007) advocate compensatory reading strategies for second-language pupils. The reading strategies they look at are strategies for information extraction and strategies related to word comprehension. The teacher can, amongst other things, train the pupil's understanding by drawing their attention specifically to different semantic relations between words, like synonymy, polysemy and homonymy. The teacher can also look at metaphors generally and work specifically with selected metaphorical expressions. In a literature-based teaching perspective, an approach like this is interesting as a specific approach to the awareness of, and learning of, opaque words and expressions—particularly if this linguistic work is a part of finding meaning in an interesting text. In the same way, we can see that the *reciprocal teaching* approach (Palincsar 1986), where dialogue and conversations between teachers and pupils contribute to clarifying the reading strategies connected to the content of the text, can be suitable. For literature-based teaching of reading, one can imagine combining the best approaches taken from specific strategies, like those drawn up by Golden and Kulbrandstad (2007) and Palincsar (1986), with volume reading, where the governing principle is that the choice of literature is adapted to the pupil and not the other way around.

In literature-based teaching of reading, the pupils are given easy access to authentic quality texts through a structured cooperation between the school and the library. The pupils will read both fiction and non-fiction from a multitude of literary genres and at a variety of levels. The teaching is organised around the pupils' reading. The pupils dramatise selected literature and visit the theatre and cinema to see works connected to what they are reading (Pihl 2009, 2012b). They discuss and write about what they read and share their experiences with one another and with adults (Gambrell 1996). They draw, paint and listen to their teacher and librarian reading aloud, and there are regular visits from authors (Alleklev & Lindvall 2003).

The pupils are given time at school to read literature chosen on the basis of themes, interest and linguistic ability. The choice and scope of literature is such that the pupils find interesting literature they can master and which at the same time gives them the opportunity and the inclination to extend and expand their understanding by being able to draw on the context and use suitable reading strategies (Daniels 2007). Relevant to this approach is what Anmarkrud and Refsahl (2010) call “induktiv begrepsl ring” (‘inductive concept learning’), which is what happens when a word is encountered in many different situations where different aspects of the meaning of the word come into play. It is thought that the pupil then, little by little, develops a more general understanding of the meaning of the word and gains an understanding that is valid across different situations. Pupils with little Norwegian literary exposure at home, and few oral experiences in Norwegian language and culture, would greatly benefit from exposure to and work with Norwegian literature at school.

In literature-based teaching, we see that the pupils develop a passion for reading in contexts in which reading is a social, fun and meaningful activity (Barton 2007; Barton et al. 2000; Martin-Jones & Jones 2000). The pupils read with pleasure, and therefore they read a lot (Tonne & Pihl 2012). The motivational factor can also be directly linked to the learning of new words:

For children, as well as adults, learning an unfamiliar word begins when it is encountered in an oral or written language context and when understanding the word matters to the listener or reader. (Carlisle 2007:82)

Empirical studies of literature-based teaching show that the teaching contributes to pupils' increased motivation to read and to learn language and content. Research presented by Elley (1991), Morrow et al. (1997), Axelsson (2000), and Alleklev and Lindvall (2003) has shown a positive correlation between copious reading of fiction and non-fiction in the school subjects, the pupils' literacy development and their learning of subject matter. This is also true for pupils from minority backgrounds who read fiction and other relevant literature in the language of instruction. This kind of use of library resources—with easy access to literature—also helps the pupils increase their cultural capital through experiencing and learning culture-specific codes (Pihl 2012a). Culture-specific codes are often connected to linguistic expressions, and are often opaque.

Conclusion

Our analyses show that morphological awareness and knowledge of polysemes, idiomatic, metaphoric and other opaque expressions that tend to be language- and culture-specific are crucial prerequisites to achieving good results in Norwegian reading tests. Low awareness in these linguistic aspects of Norwegian becomes decisive for the second-language pupils—so much so that for these pupils, the tests hardly measure what they are meant to measure, i.e. reading comprehension in the meaning of finding, interpreting and reflecting on information. Instead, second-language pupils' morphological awareness and awareness of opaque expressions in Norwegian becomes determinative. When the second-language pupils sit the national reading test, a problem of validity arises.

If teachers lack insight into the consequences of second-language pupils having different linguistic and cultural starting points than what the national test presupposes, this may have negative consequences for how they interpret and follow-up on the test results. If the results are interpreted in the same manner as they are for first-language pupils, the follow-up can be insufficient or unsuitable.

In the last part of this article, we described a teaching method that may serve as one possible pedagogical response to the linguistic and cultural situation in which these pupils find themselves. Through literature-based teaching of reading, the pupils work with and read a rich variety of fiction and non-fiction in a structured framework of cooperation between the school and the library. The pupils are supported in the selection of literature they can master, where they understand enough words to be able to make use of the context and effective reading strategies and aim towards ever-increasing comprehension. In so doing, the pupils' reading ability moves in an upward spiral so that they continually increase their knowledge of cultural context and develop and improve their reading strategies, morphological awareness and awareness of

metaphorical and other opaque expressions in Norwegian. This is a crucial prerequisite for good reading comprehension in Norwegian.

Literature

- Alleklev, Birgitta & Lisbeth Lindvall 2003: *Listiga Råven smyger vidare – Litteraturen som väg til kunskåp frå år 4: En bok för alla*.
- Anmarkrud, Øistein & Vigdis Refsahl 2010: *Gode Lesestrategier – På Mellomtrinnet*. Cappelen Akademiske forlag.
- Arnaud, Pierre J.L. & Sandra J. Savignon 1997: Rare words, complex lexical units and the advanced learner. In James Coady & Thomas Huckin (eds.), *Second Language Vocabulary Acquisition (157–173)*: Cambridge University Press.
- Arntzen, Ragnar 2012: Tospråklige barn fra barnehage til skole – et prosjekt i språkstimulering og språkkartlegging av andrespråket 2008–2011. In Ragnar Arntzen, Susanne Duek & Arnstein Hjelde (eds.), *Flerspråklig oppvekst i barnehage, førskole og skole. Artikler av lærere og forskere i det nordiske nettverket (27–74)*.
- Aschehoug 2013: <http://aschehoug.no/nettbutikk/zepelin-leseserie-1-7-kunnskapsloftet.html>
- Aukrust, Vibeke Grøver 2005: Tidlig språkstimulering og livslang læring – en kunnskapsoversikt. Universitetet i Oslo/Kunnskapsdepartementet.
- Axelsson, Monica 2000: Framgang för alla – från att inte kunna til att inte kunna låta bli att läsa. In H. Åhl (ed.), *Svenskan i tiden – verklighet og visioner*. Stockholm: HLS Förlag.
- Barton, David 2007: *Literacy An Introduction to the Ecology of Written Language*. Oxford: Blackwell Publishing.
- Barton, David, Mary Hamilton & Rpz Ivanic (eds.) 2000: *Situated Literacies Reading and Writing in Context*. New York: Routledge.
- Bensoussan, Marsha & Batia Laufer 1984: Lexical guessing in context in EFL reading comprehension. *Journal of Research in Reading*, 7, 15–32.
- Bialystok, Ellen 2001: *Bilingualism in Development: Language, Literacy and Cognition*. Cambridge University Press.
- Brenne, Hilde 2005: Grammatikk, semantikk og lesedugleik. Master thesis, Oslo University.
- Caglar-Ryeng, Ömür 2010: Morphological Awareness Skills of Norwegian Adolescent Dyslexics Acquiring English as a Second Language. Master thesis, Tromsø University.
- Carlisle, Joanne F. 1995: Morphological awareness and early reading achievement. In L. Feldman (ed.), *Morphological Aspects of Language Processing (189–209)*: Hillsdale, NJ: Lawrence, Erlbaum.
- Carlisle, Joanne F. 2004: Morphological processes that influence learning to read. In C.-Addison Stone, Elaine R. Silliman, Barbara J. Ehren & Kenn Apel (eds.), *Handbook of Language and Literacy*. London: The Guilford Press.
- Carlisle, Joanne F. 2007: Fostering Morphological Processing, Vocabulary Development, and Reading Comprehension. In R.K. Wagner, A.E. Muse & K.R. Tannenaum (eds.), *Vocabulary Acquisition*. NY: Guilford Publications.
- Clahsen, H., I. Sonnenstuhl & J. Blevins 2003: Derivational morphology in the German mental lexicon: A dual mechanism account. In H. Baayen & R. Schreuder (eds.), *Morphological structure in language processing (125–155)*. Berlin: Mouton de Gruyter.
- Daniels, Harry 2007: Pedagogy. I H. Daniels, M. Cole & J.V. Wertsch (eds.), *The Cambridge Companion to Vytosky (307–332)*. New York: Cambridge University Press.

- Danielsson, Kristina 2002: The Impact of High versus Low Linguistic Levels in Swedish Beginning Readers' Oral Reading of Running Texts. *Scandinavian Journal of Educational Research*, 46(4), 427–457.
- Dressman, Mark 1997: Congruence, Resistance, Liminality: Reading and Ideology in Three School Libraries. *Curriculum Inquiry*, 27(3), 267–315.
- Elley, Warwick B. 1991: Acquiring Literacy in a Second Language: The Effect of Book- Based Programs. *Language and Learning*, 41(3), 375–411.
- Eng, Helga 1912: Abstrakte begreper i barnets tanke og tale. Psykologiske undersøkelser paa grundlag av iakttagelse og eksperimenter med skolebarn. (dr.philos. thesis thesis), Universitetet i Oslo.
- Engen, Liv 1997: Kartlegging av lese-dugleik. Idéhefte 5. klasse (tidlegare 4. klasse). Nasjonalt lesemiddelsenter.
- Engen, Liv 1999: Kartlegging av leseferdighet på småskoletrinnet og vurdering av faktorer som kan være av betydning for optimal leseutvikling – En beskrivelse av den faglige prosessen med å utvikle nasjonale kartleggingsprøver for småskoletrinnet, og en vurdering av forholdet mellom fonologiske delferdigheter, ordlesings- og tekstlesingsferdigheter blant elever i 1. og 2. klasse. (dr.philos), Universitetet i Bergen.
- Gambrell, Linda B. 1996: Creating classroom cultures that foster reading motivation. *The Reading Teacher, International Reading Association*, 50(1), 14–25.
- Golden, Anne 1984: Fagord og andre ord i o-fagsbøker for grunnskolen. I Anne Hvenekilde & Else Ryen (eds.) *Kan jeg få ordene dine, lærer?* Oslo:LNU/Cappelen forlag.
- Golden, Anne 2005: Å gripe poenget. Forståelse av metaforiske uttrykk fra lærebøker i samfunnskunnskap hos minoritets elever i ungdomsskolen. (dr.philos thesis, Acta Humaniora nr. 227), Universitetet i Oslo.
- Golden, Anne 2009: *Ordforråd, ordbruk og ordlæring* (3. utg.). Oslo: Gyldendal Akademisk.
- Golden, Anne & Lise Iversen Kulbrandstad 2007: Teksten som utgangspunkt for arbeid med lesing og ordforråd. Andrespråksdidaktiske utfordringer i videregående opplæring. *NOA*(23), 33–66.
- Harley, Trevor 2008: *The psychology of language*. NY:Psychology Press.
- Holmegaard, Margareta 2007: Långa ord – en svårighet för flerspråkiga studerande? In Lindberg & Kokkinakis (eds.), *OrdiL – en korpusbaserad kartläggning av ordförrådet i läromedel för grundskolans senare år*. Göteborgs Universitet, 135–169.
- Høien, Torleiv & Ingvar Lundberg 2002: «Håndbok. Koas 2002. Kartlegging av ordavkodingsstrategier.» Stiftelsen Dysleksiforskning/ Logometrica AS, Stavanger.
- ILS 2012: PISA, hentet ut fra <http://www.pisa.no/> august 2012. Institutt for lærerutdanning og skoleutvikling, Universitetet i Oslo
- Kieffer, Michael J. & Nonie K. Lesaux 2008: The role of derivational morphology in the reading comprehension of Spanishspeaking English Language Learners. *Reading and Writing:An Interdisciplinary Journal*, 21(8), 783–804.
- Kirke-, utdannings- og forskningsdepartementet 1999: *Veiledning L97 L97S. Lese- og skriveopplæring*. Nasjonalt læremiddelsenter. Hentet ut i mai 2012 fra [www:http://www.handboka.no/Skole/Temapro/Leskri/ls00.htm](http://www.handboka.no/Skole/Temapro/Leskri/ls00.htm).
- Kulbrandstad, Lise Iversen 1998: Lesing på et andrespråk. En studie av fire innvandrerdommers lesing av lærebokstekster på norsk. Universitetsforlaget.
- Kulbrandstad, Lise Iversen 2000: Metoder for undersøkelse av unges leseforståelse – en oversikt og teoretisk diskusjon, i samlingen *Unge lesere – fire artikler*, HiHmrapport nr. 2(55–76). Elverum: Høgskolen i Hedmark.

- Kulbrandstad, Lise Iversen 2010: Leseopplæring på ungdomstrinnet før og etter PISA 2000. In E. Elstad & K. Sivesind (eds.), *PISA – sannheten om skolen?* Oslo: Universitetsforlaget.
- Kunnskapsdepartementet 2006 (justert 2008/2009): Kunnskapsløftet, <http://www.udir.no/Lareplaner/Kunnskapsloftet/>
- Kuo, Li-Jen & Richard C. Anderson 2006: Morphological awareness and learning to read: A cross-language perspective. *Educational Psychologist*, 41(161–180).
- Laufer, Batia 1992: How much lexis is necessary for reading comprehension? In J.L. Pierre Arnaud & H. Béjoint (eds.), *Vocabulary and applied linguistics* (126–132): Macmillan.
- Laufer-Dvorkin, Batia 1991: *Similar Lexical forms in Interlanguage*. Tübingen: Gunter Narr.
- Lyster, Solveig Alma Halaas 2002: The effects of morphological versus phonological awareness training in kindergarten on reading development. *Reading and writing: An interdisciplinary Journal*, 15(261–294).
- Martin-Jones, Marilyn, & Kathryn Jones (eds.) 2000: *Multilingual Literacies*. Amsterdam: John Benjamin Publishing Company.
- Miguel, Nausica Marcos 2012: Grapho-Morphological awareness in Spanish L2 reading: how do learners use this metalinguistic skill? *Language Awareness – Special issue on Awareness matters: Language, culture, literacy*. 21(1–2), (197–214).
- Morrow, Lesley Mandel, Michael Pressley, Jeffrey K. Smith & Michael Smith 1997: The effect of a literature-based program integrated into literacy and science instruction with children from diverse backgrounds. *Reading Research Quarterly*, 32, 54–76.
- Palincsar, Annemarie S. 1986: *Reciprocal teaching*. In *Teaching reading as thinking*. Oak Brook, IL: North Central Regional Education Laboratory.
- Pihl, Joron 2009: Interprofessional Cooperation between teachers and librarians: Analysing theoretical and professional arguments for cooperation in an era of globalization. I Holmarsdottir & O’Dowd (eds.) *Nordic Voices: Teaching and Researching Comparative and International Education in the Nordic Countries*, 39–59 Sense Publishers.
- Pihl, Joron 2012a: Can library use enhance intercultural education? *Issues in Educational Research*, 22(1), 79–90. <http://www.iier.org.au/iier22/pihl.pdf>
- Pihl, Joron 2012b: Multiplisitet, myndiggjøring, medborgerskap Inkludering gjennom bruk av biblioteket som læringsarena *HiOA-rapport(57)*. HiOA.
- Roe, Astrid 2010: Nasjonale leseprøver – hva de måler og hvordan resultatene kan brukes. *Bedre Skole*, 1, 41–47
- Roe, Astrid & Svein Lie 2009: Nasjonale prøver i et didaktisk og testteoretisk perspektiv. In S. Dobson, A. Eggen & K. Smith (eds.) *Vurdering. Prinsipper og praksis*. Gyldendal.
- Rødttvet skole 2013: «Tidlig innsats, early years (TIEY)», hentet ut april 2013: <http://www.rodtvet.gs.oslo.no/satsing2/Lesing.html>
- Stanovich, Keith E. 1986: Matthew effect in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21(4), 360–406.
- Stone, C-Addison, Elaine R. Silliman, Barbara J. Ehren & Kenn Apel (eds.) 2004: *Handbook of Language and Literacy*. New York and London: The Guilford Press.
- Sudmann, Arnulv 1978: Kor mykje forstår borna av språket i lærebøkene? *Norsklæraren* (3), 24–30.
- Tonne, Ingebjørg & Joron Pihl 2012: Literacy education, reading engagement and library use in multilingual classes. *Intercultural Education, Routledge*, 23(3), 11.
- Utdanningsdirektoratet 2013: Vurdering, <http://www.udir.no/Vurdering/> Østberg, Sissel, Hasan Ajnadzic, Anders Bakken, Aina Bigestans, Petter de Presno Borthen, Sølvi O. Gjøl, Helge Jagmann, Bodil Labahå, Bashar Al Raho, Pernille P. Smith, Agneta Bolinder, Nina T.

Grønvold, Rita Kumar, Arne R. Olsen & Håvard Vederhus 2010: Mangfold og Mestring. I *NOU* 7. Oslo: Kunnskapsdepartementet.

Øzerk, Kamil 2009: Læring av lærestoff og utvikling av språk på skolen. Noen metodiske ideer basert på utprøvde opplegg i Oslo-skolen. *Norsk pedagogisk tidsskrift*, 4, 294–309.

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