

# Mapping Assessment for Learning (AfL) communities in schools

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## Abstract

This article reports findings from a nationwide research project conducted in Norway to determine the impact of the national programme called Assessment for Learning (AfL, 2010–2014) on school practices and classroom practices when assessment is used as a tool for learning. Based on a conceptual mapping tool developed to analyse AfL communities, the findings indicated that there were four stages in the development of a school's assessment culture. It was found that teachers must become familiar with goals and criteria for a specific period before students are more involved, and before teachers are able to use assessment to adapt learning. At the same time, the goals and criteria appear to be less important when teachers have a strong common understanding of the curriculum and when the students are strongly involved in instruction through self-assessments.

## Introduction

This article reports from a large-scale implementation of Assessment for Learning (AfL) in Norway by investigating different stages in the development of schools' AfL communities of practice. The study is motivated by the challenges related to large-scale implementations of AfL. It is an attempt to link teacher learning in such implementations to classroom assessment practices to gain new insights into what characterises the development of AfL communities in Norwegian schools.

The AfL movement (Assessment Reform Group, 1999; Black & Wiliam, 1998) has, for the last two decades, set standards for how to ensure reporting on student learning and also provide means for supporting and enhancing student learning. The field of AfL operates with several definitions, and has moved since Black and Wiliam's initial work (Black & Wiliam, 1998; Klenowski, 2009; Swaffield, 2011; Wiliam, 2011) into a more learner-centred definition. The definition of AfL used in this article takes into

account that AfL should help to develop autonomous students, and when working with AfL you should have an awareness of what roles teachers, students, and fellow students play in the learning process (Swaffield, 2011). AfL is part of everyday practice by students, teachers, and peers that seeks, reflects upon, and responds to information from dialogue, demonstration, and observation in ways that enhance ongoing learning (Klenowski, 2009).

There are many examples of how AfL implementation has developed successfully in small-scale projects where the motivation to join the project is based on special arrangements (Baird, Hopfenbeck, Newton, Stobart, & Steen-Utheim, 2014; Black & Wiliam, 1998; Hayward & Spencer, 2010; Hodgson & Pyle, 2010). However, there have been difficulties in the implementation of large-scale policy (Hopfenbeck, Tolo, Flórez Petour, & Masri, 2013; Tam & Lu, 2011; Thompson & Wiliam, 2008). One of many challenges is the need for deeper understanding of theories of development and change, and knowledge of the theories behind the work of AfL. If this knowledge is insufficient, there is a danger that implementations of AfL will be misunderstood and not succeed (Hayward, 2015).

When a school is to develop its assessment practice, well-established teaching routines can be challenged by new ideas. In their latest paper, Black and Wiliam (2018) emphasise challenges related to pedagogical and instructional issues and the importance of both subject and pedagogical content knowledge (Shulman & Shulman, 2004) when implementing AfL. Some teachers have long experience of involving students in professional discussions that clarify what is expected of the students. If such teachers are forced to implement general rules for how to present learning goals in the beginning of each class, the result may paradoxically be that the teaching becomes more monological and routine (Baird et al., 2014). It may also be challenging to express professional expectations in standardised goal formulations, and the literature reports on concerns about lack of subject content knowledge and assessment skills among teachers (Carless, 2005; Hodgson & Pyle, 2010; Nordenbo, Larsen, Tiftikçi, Wendt, & Østergaard, 2008; Thompson & Wiliam, 2008). Black and Wiliam (2018) also underline the need for a broader understanding of the complexity of AfL, where the design of educational activities and associated assessments are influenced by the theories of pedagogy, instruction, and learning, and by the subject discipline, together with the wider context of education. There have been

concerns about this problem at a national level in Norway (Nordenbo et al., 2008), and the work that has been done to promote better assessment practices in the Norwegian school culture has primarily been of general pedagogical character and not subject-specific (Sandvik & Buland, 2014).

Another implementation concern is related to whether teachers are part of a whole-school commitment to the implementation, whether there have been AfL communities created, and of generating a change at a whole-school level. The school's overall assessment literacy is a crucial aspect of such processes: the ability of teachers and school leaders to investigate pupils' achievements, develop action plans based on assessment results to raise learning outcomes, and the ability to participate in discussions on the use and abuse of such data (Black, Harrison, Lee, Marshall, & Wiliam, 2010; Fullan, 2001).

There are a number of models for how school development can take place, and, according to Kennedy (2005), they can be categorised on a spectrum from pure transfer of knowledge to more transformative-oriented and inquiry-based development models. The "cascade" model for school development, where existing knowledge is introduced into school, has been dominant also within the assessment field (Hutchinson & Hayward, 2005). New school-development models, on the other hand, emphasise an investigative and school-based approach to the professional learning of teachers and school leaders (Cochran-Smith & Lytle, 2009; Jiang & Hill, 2018; Timperley, 2011). Successful school-development processes therefore require knowledge, good relationships, trust, and meaningful collective experiences (Fullan, 2001). To establish and sustain AfL communities, developing teacher learning communities (Hargreaves, 2013), and professional learning communities has been recommended as a strategy (Birenbaum, Kimron, & Shilton, 2011; Timperley, Wilson, Barrar, & Fung, 2007). Also, the role of the school leadership to facilitate and follow up the improvements is crucial, as well as university researchers who function as trainers or facilitators (Datnow & Hubbard, 2016).

## **The Norwegian context**

Norway, like many other countries, was inspired by the AfL movement, and in 2006 we received a new curriculum reform focusing on learning-outcomes descriptions. A national programme called Assessment for

Learning (AfL) was launched (2010–2014) to develop assessment literacy among teachers. Schools were motivated to participate by government funding. The national initiative is based on the four research-based principles of AfL (Assessment Reform Group, 1999) which are also emphasised in the Norwegian Education Act (Regulations of the Education Act, 2006). This act states that students and apprentices learn better when they:

- understand what to learn and what is expected of them (§3–1)
- obtain feedback that provides information on the quality of their work or performance (§3–11)
- are given advice on how to improve (§3–11)
- are involved in their own learning process and in self-assessment (§3–12).

In other words, the Norwegian authorities have put the student's right to receive assessment that promotes learning into its legislation regulating the work in Norwegian schools. However, the Norwegian education system has been grappling with dilemmas concerning low accountability and transparency on the one hand and a high level of trust, decentralisation, and autonomy of teachers on the other hand. The dilemmas are particularly evident when it comes to implementing AfL in schools and to enhance assessment literacy among teachers, leaders, stakeholders, and policymakers (Hopfenbeck, Flórez Petour, & Tolo, 2015). One problem was that, in parallel with the formally oriented guidelines for classroom-based assessment, national tests were introduced in reading, writing, and mathematics, which meant that school results dominated the political discussion. Consequently, in the face of an ever-increasing emphasis on goals and results at school, conflict between different school policy perspectives arose. The national tests diverted attention from the introduction of the formative oriented policies.

The Norwegian authorities assumed that the relationship between policy and practice was quite simple. If the teachers received information about new ideas and had the opportunity to reflect on them, along with some tools for school development, the implementation would be relatively problem free. The idea was that some teachers would hear a little about the desired changes, and then they would “spread” these ideas or practices in their own classroom, among their own colleagues, or to other schools. Such a model for school change is commonly referred to as the “cascade” model (Kennedy, 2005).

Experience of AfL in Norway shows that the cascade model (Kennedy, 2005) has good intentions, but also several shortcomings in the practical implementation (Hopfenbeck et al., 2015). The curriculum reform was conducted in parallel with the assessment reform, without the two aspects of teacher practice being considered in context. The consequence was that the teachers perceived the assessment reform as an addition to the curriculum reform, and not as a more fundamental change in the view of teaching and learning.

The Norwegian experience shows that changes in an assessment culture cannot be “easily implemented”. On the basis of such a change, researchers, authorities, and practitioners must build in a basic awareness of how teachers learn and how complex changes are taking place in large systems. There is, therefore, a need for good models that illustrate how such processes can be supported in practice. This article presents a theoretical model that can serve as a map to understand the development of AfL communities in schools. The research question is: Which AfL communities exist in Norwegian schools?

## **AfL communities in schools**

In this article, *AfL communities in schools* are understood as learning communities that place students at the centre of the community with assessment practices that are clear to all so that students can fully understand and evaluate their own progress (Assessment Reform Group, 1999; Elwood & Klenowski, 2002). AfL communities in schools consist of teachers, students, and school administrators.

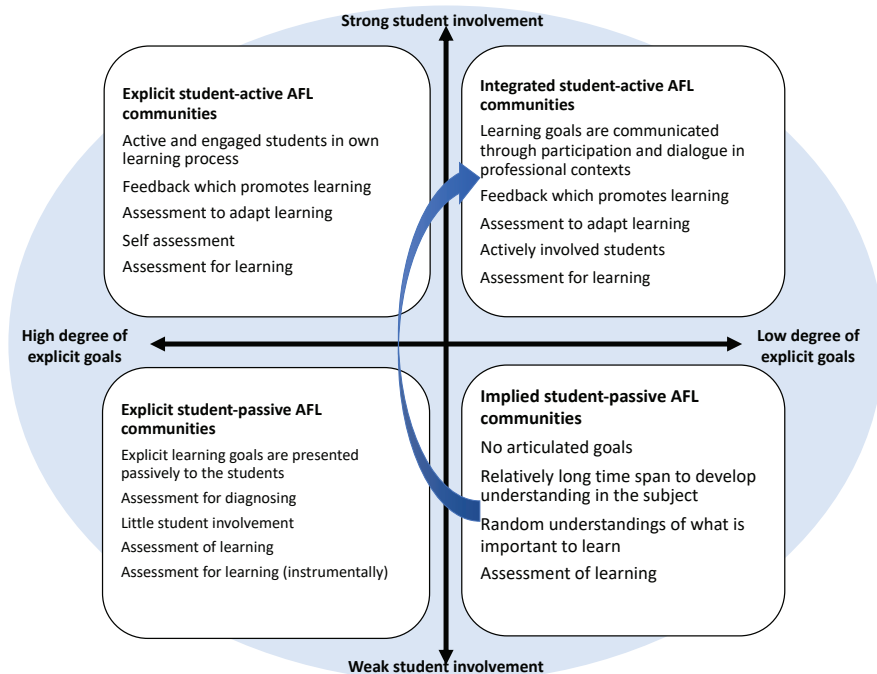
Teachers work in several “communities” simultaneously, including organisational and scholarly communities, and establishing AfL communities within school systems has proved to be rather challenging (Hargreaves, 2013). A research review by Hill (2016) confirmed that AfL communities which are suitably encouraged and supported can be sustained and can become a standard feature of schools and classroom practices. The AfL approach involves actively engaging students in assessment processes throughout the learning process to improve achievement, to develop metacognition, and to support motivated learning and positive student self-perceptions (DeLuca, Luu, Sun, & Klinger, 2012); however, AfL has often been interpreted in ways that fail to engage learners during self-

peer-, and co-regulated evaluative practices (Marshall & Jane Drummond, 2006). Rather than including learners in assessments as co-assessors, decisions are often made for students by teachers, with student involvement being infrequent at best or involving the learners in low-stakes activities, such as behavioural goal setting (Absolum, Flockton, Hattie, Hipkins, & Reid, 2009; Booth, Hill, & Dixon, 2014). School reforms that require the application of the AfL approach should place students at the centre of a learning community, and the assessment practices should be clear to all so that students can fully understand and evaluate their own progress (Elwood & Klenowski, 2002). The development of AfL communities in schools therefore requires the participants to have a common understanding of basic theoretical concepts of AfL (Xu & Brown, 2016), good relationships, trust, and meaningful collective experiences (Hill, 2016).

## Model for analysis of AfL communities

This article presents a theoretical model that can serve as a map of the development of AfL communities. The model is based on two main factors in the development of AfL communities—1) explicit goals and expectations for student learning, and 2) the degree of student involvement in assessments—and is used as a tool to analyse findings in this study. The model is based on the findings of O'Donovan, Rust, Price, and Carroll (2006), who developed the model in the British context, and it has been further developed based on the empirical research classroom research on AfL in Norway (Sandvik & Buland, 2014), analyses of the theories and definitions of AfL (Assessment Reform Group, 1999; Black & Wiliam, 2018; Klenowski, 2009; Swaffield, 2011; Wiliam, 2011), and examinations of AfL communities in schools (Hargreaves & Fullan, 2012; Hill, 2016).

The model presented in Figure 1 includes the four ideals of AfL communities and can be seen as a developmental model, where the arrow shows the direction of development. The key words in each quadrant illustrate central patterns of the different AfL communities: use of goals, how teachers plan learning and assessment in and along subjects, assessment for and of learning, assessment for diagnosing, assessment to adapt learning, student engagement in assessment, self-assessment, feedback, etc. At a school, a teacher or a group of teachers can exhibit some characteristics of one of the quadrants, along with characteristics of another; there can exist different



**Figure 1. Four different AFL communities (modified after O'Donovan et al., 2006)**

AfL communities in the same school and in the same department. In other words, the different approaches to assessment standards dominant within each quadrant are not mutually exclusive. Moving into a new quadrant (as depicted by the curved arrow) can be viewed as a “nested hierarchy” in that each quadrant encapsulates the understandings of the preceding approach. Education, special interests, collegial collaboration among other things could be reasons for these differences. The model frames the presentation of the findings.

## Methods and data sources

This study utilises a qualitative research strategy (Creswell, 2013) in order to explore AfL communities in Norwegian schools. Stake (2005) claims that case studies can assist the reader in the construction of knowledge.

Understanding assessments as situated social practices means that what constitutes legitimate knowledge and practices in a classroom is inspired both by tradition and by the institutional discourse related to assessments (Pryor & Crossouard, 2008). A phenomenon such as an “assessment in school” is not constant; it depends on how it is discussed, observed, and understood.

To select the schools, the following criteria were applied: participation/non-participation in the AfL programme (four schools in the programme, four not in the programme); representation of all school levels, primary schools (1–7), primary and secondary schools (1–10), secondary schools (8–10), upper secondary schools (11–13); and locations in both urban and rural areas (Sandvik & Buland, 2014).

**Table 1. Schools in the case study**

School name	School type	Part of AfL	Not part of AfL	Students (approximate number)	Teachers (approximate number)
Nesvik	11–13	X		1,250	240
Borgheim	11–13		X	600	120
Storstein	1–10	X		590	70
Husvika	1–10		X	310	40
Overvik	8–10	X		250	40
Viken	8–10		X	360	35
Langnes	1–7	X		360	35
Nyland	1–7		X	280	25

The empirical data material consisted of classroom observations ( $N = 50$ ) and focus-group interviews carried out with students, teachers, parents, and school administrators in eight schools (Interviews  $N = 93$ , Interviewees  $N = 210$ ). The focus-group interviews were semistructured and had the same topic areas: these referred to how the interviewees understood (and for teachers and school leaders: practised) assessment for and of learning, classroom-based assessment and how they collaborated about assessment, asking teachers and school leaders specifically for how they worked with learning goals, student involvement, assessment for diagnosing, assessment to adapt learning, self-assessment, feedback, and professional learning communities.



**Table 2. Interviews**

Category	Number of interviews	Number of interviewees
Parents	9	35
School leaders	8	18
Students	17	63
Teachers	59	94
Total	93	210

**Table 3. Classroom observations**

Subject	Grade	Number of observations	Total
English	4 grade	5	17
	7 grade	3	
	10 grade	5	
	11 grade	4	
Norwegian	4 grade	3	13
	7 grade	4	
	10 grade	3	
	11 grade	3	
Maths	4 grade	4	14
	7 grade	4	
	10 grade	4	
	11 grade	2	
Physical education	4 grade	4	12
	7 grade	3	
	10 grade	3	
	11 grade	2	
			56

We had designed an observation chart that formed the basis for the observations. This form was designed on the basis of the key concepts of assessment as identified from research, formulated in the Education Act, and explicitly formulated in Figure 1 (learning goals, student involvement, assessment for diagnosing, assessment to adapt learning, self-assessment, feedback, and professional learning communities). The purpose of the form was to act as a guide for the researchers and to ensure we had a similar focus during the observation in the different subjects. We conducted the observations in pairs.

In addition, documents ( $N = 78$ ) covering teaching plans, annual plans, half-year plans, and term plans in the Norwegian (NO), English (EN), mathematics (MA), and physical education (PE) subjects were collected. We did not manage to collect plans from all observations. The observed teachers did not follow up the agreement by submitting documentation on planning work, even though the plans were requested several times. The reason for this is unknown. For instance, at primary school, weekly schedules are available online, while annual plans are not available. At the intermediate stage, all plans were available only to people with access to schools' digital learning platforms. This leads to a weakness in the analyses, but the selection is large enough to draw some general conclusions.

## Data analysis

The analysis was conducted on the basis of theory-driven categories presented in Figure 1. The categories were obtained from findings of O'Donovan et al. (2006), the empirical research on AfL (Sandvik & Buland, 2014), analyses of the theories and definitions of AfL (Assessment Reform Group, 1999; Black & Wiliam, 2018; Klenowski, 2009; Swaffield, 2011; Wiliam, 2011), and examinations of AfL communities in schools (Hargreaves & Fullan, 2012; Hill, 2016).

The model presented in Figure 1 creates a structure for organising the data from the observations, interviews, and documents. I present the findings in a narrative form (Riessman, 2008). Narrative approaches are valuable to education research due to their potential to convey complexities and tensions that often arise in the teaching profession (Clandinin & Connelly, 1996; Riessman, 2008). The narratives present two cases, the schools Borgheim and Langnes. Findings from all eight schools are synthesised, according to

the four quadrants in Figure 1, to illustrate how AfL communities develop. First, patterns related to assessment practices in the observations, documents, and interviews were identified. An example of such a pattern could be the similarities and the frequencies in the material of how learning goals were used by teachers and students and how they were presented for the students. We systematically ordered the data into the categories used in the data collection: learning goals, student involvement, assessment for diagnosing, assessment to adapt learning, self-assessment, feedback, and professional learning communities. The categories also formed the structure of the narratives and the discussion of the data. Secondly, the different school contexts and stories were examined to ensure the quality of the analysis. Thirdly, a research narrative from each school was written based on the data as a whole, the identified patterns found in the material, and the underlying theoretical perspectives informing the study. Then, they were analysed based on the model of AfL communities (Figure 1).

### **Quality and ethics**

All the schools have been given fictitious names, thus the article complies with the ethical principle of making participants anonymous (NESH, 2006). The descriptions and experiences that are presented are connected to the specific schools with their school leaders and teachers, but by developing categories across the schools I have generalised within them. The presented findings and analysis may also have importance beyond their context if readers of this text can use them to think creatively and imaginatively (Geertz, 1973). Thus, if the article is used as a tool for development, the findings can contribute to development, both in school and in teacher education.

### **Findings**

#### **Borgheim: Several practices and understandings under the same roof**

Borgheim is a secondary school in a large Norwegian city. Most students applying to this school have very good or good grades. At this school, the assessment practices are different for different subjects, and the teachers also have different understandings of what assessment is and what it is not. There are no collective strategies initiated by the administration for

developing professional AfL communities at school level. The teachers themselves described the school with many individualists “and many teachers working well alone, but we are doing very well together”.

The teachers at Borgheim did not want to participate in focus-group interviews, so we conducted individual interviews with the teachers observed. The interviews gave the impression of a staff with high professionalism and a great understanding of what AfL is, or can be, within the various subject areas. The interviews drew a picture of an assessment culture that was very different from one subject area to another. While in some subject areas there were strong traditions for collaboration, in other sections there was little of this.

### *Goals and criteria*

The teachers at Borgheim do not collaborate on planning instruction or assessments. They justify this by saying that they want to “utilise their individual strengths”. There is no annual plan for subjects taught at the school, and there are no goals or criteria published on the learning platform. According to the teachers, they “lack training in technology use”.

Individually, teachers reflect on how they have become much more explicit in working with goals and criteria. One teacher tells about how he works with different topics and how he engages students in the work of understanding where they are going and how to get there, while another teacher tells that respect for one another and the different views students can have in classroom discussions is more important than clear goals.

In a Norwegian-language course observed, students met visible assessment criteria for oral assignments in Norwegian subjects. Students worked in groups, and the teacher expected full participation. The teacher sometimes walked around the classroom and ensured that everyone understood the material, and provided guidance where needed. The teacher assessed the students’ achievements when the work was completed. Students also completed writing assignments, but they did not receive information regarding criteria or how the text would be assessed by the teacher. In another lesson, another Norwegian teacher initiated a discussion with students regarding their associations with a novel’s title. The teacher posed general questions related to racism without stimulating class engagement. Only four

to five students participated, the rest used their computers doing whatever they wanted to do. During the interviews, the students indicated that they did not view Norwegian-language classes as important without having established goals and criteria. However, one of the students stated that “the quality of feedback is more important than having goals”. A key theme in many of the student interviews was reliability in assessment. The students were concerned about the reliability of the assessment. They expressed anxiety about some students being favoured when coming to grading.

### *Student involvement*

In an English-language classroom, students participated in the formulation of assessment criteria. The teacher encouraged them to read the lesson plans and to ask questions if something was unclear. The learning environment appeared to be safe and trusting, and the conversation with the class was plenary in nature. The instruction approach was characterised by high participation and involvement in class, and when the students were engaged, other students followed this example. The teacher posed challenging questions that required students to reflect on their understanding of concepts. The teacher expressed that the oral activities aimed to promote trust and relationship development in the class, and that positive responses to the students facilitated this objective.

One teacher expressed that student involvement and fellow student assessment was something he did not practise. The teacher could tell that he had thoughts about it, but he “had not used it actively”. He even explained that he may not have enough knowledge about how to do it and that he didn’t feel completely confident about how to do it. There were no traditions in the school for discussions about assessment practices across subject areas.

### *Assessment for adapting teaching and self-assessment*

There was no organised form of self-assessment during the lessons observed. The teachers expressed that they used brief tests to motivate students and to obtain information about the students’ levels of knowledge to modify instruction if needed. The teachers at this school expressed that they did not see self-assessment as an integrated part of the teaching practices.

The school leadership emphasised the importance of continuous dialogue with the students on their learning process. They said that there had previously been no explicit discussion about the topic assessment for learning, but that the school leadership had expectations for individual teachers to have these discussions systematically and regularly. They underlined that the students were aware of their rights according to the regulations in the Education Act (2006). Based on the demands from the students they claimed that the pressure or the need to change assessment practices did not just come from the top down, but just as much from the bottom up, from the students who expected another form of assessment; that is, feedback to enhance learning. The school leadership also explained how the yearly student survey showed poor results concerning student involvement in assessment at school level.

### **Langnes: From goals and criteria to a community of practice**

Langnes primary school is a Years 1–7 school in a large Norwegian city. The school has worked with assessment criteria and feedback in its school-based development work. Local work on the curriculum was described as both useful and difficult, and the teachers wanted to clarify what to learn and how the work should be assessed with students. The teachers considered this to be important, but time-consuming; however, the explicit emphasis on expectations for student learning has been replaced by a stronger common understanding of assessments.

#### *Goals and criteria*

Owing to efforts to establish explicit expectations, there was a stronger common understanding of the school community regarding learning goals. There was less of a need to present the goals visually. Instead, the expectations “exist in the classroom” and the community of practice. According to the teachers, the students have an understanding of what quality is, and it is “more natural”; they have it “under the skin”. “You should hear the conversations they have with their meanings about where they are stuck,” a teacher commented. The change towards a more collective assessment culture has also made it easier for teachers to transfer practices between subjects. The students at Langnes show that they have an increased awareness of what is bad and what is good achievement. The planning documents

and the various assessment tasks and forms used at this school show that teachers have developed good practices, with assessment criteria that are professionally oriented. The students expressed that they were aware of the learning goals, and that the teachers helped them to reach them.

### *Student involvement*

During an observation of a mathematic class in the fourth grade, students were strongly involved in the assessment of their own progress, and they were actively engaged in defining mathematical terms and in using different learning strategies when solving the mathematical problems during the lesson. Teachers explained how these practices had led to a strong awareness among students of their own learning processes. Strong student involvement was a relatively new development at the school. The teachers were surprised by how this has developed at the school, even for the youngest students. They described the pupils' self-esteem evaluations as "uncensored and direct" and commented that "the kids tolerate each other's comments". Even at the lowest grade levels, the students are engaged in pair assessments, and the teachers arrange for the students to develop an understanding of their own work efforts as well as the activities. "When you're six years old, you manage it just fine," stated one of the teachers.

The teachers described previous assessment work as demanding but stated that changes in the school culture and the teachers' roles at the school have made them feel prepared to involve students. Through regular weekly meetings to share their experiences and to identify links between reflection and testing, the teachers have developed a culture of collaboration at their own school and in networks with other schools. They share experiences with one another and reflect on their own practices.

### *Assessment for adapting teaching and self-assessment*

Teachers expressed their meaning about student participation in the assessment work. Teachers largely expressed the importance of integrating student participation in their assessment. The observations showed that this participation was through self-assessment, feedback practices, and active student involvement in learning. Most teachers felt that the students' self-assessment contributes positively to the students' learning, which can

be understood as having a positive view of self-assessment as a tool. In the case of peer assessment, however, the interviews showed that it is being used to a limited extent.

The teachers emphasised that assessment literacy requires a repertoire of practices that teachers can use to map where students are and where they are going, to obtain knowledge to anticipate students' needs, to understand the students' viewpoints, to exchange good dialogue with the students, and to have confidence in their own practices. They also viewed professional knowledge, class management, planning, and organisation with a team as a fundamental part of assessment skills. The teachers believed that principals should have the same skills, although a school leader cannot understand all subjects as well as teacher experts.

## **Developing AfL communities in Norwegian schools**

The different assessment cultures presented in the two narratives illustrate the differences in AfL communities that were found in the data collected for this study. Especially the degree of student involvement, the need for clear expectations of assessment, and also the school leaders' role seem to be the main issues in developing AfL communities, when looking at all eight schools using the model presented in Figure 1.

### *1. Implied student-passive AfL communities*

At schools positioned in the first quadrant, the goals for student learning are rarely visible and there is a traditional and summative-oriented community. The goals are not mentioned, and the relationships between learning activities and learning objectives are not emphasised as part of classroom practices. Learning is understood as a process that occurs over a relatively long time span, and the students' insights into key academic content occur randomly rather than in planned scenarios. Some of the teachers at Borgheim School serve as an example of a school and a culture in which the learning objectives for the students are not visible. Teachers rarely deliver instruction based on clear learning goals, and they view professional learning as a slow process in which knowledge develops over time. One consequence of this view is that teachers do not consider the need to continuously monitor student learning, and because learning and maturation take place over time,



student learning can only be assessed long after instruction takes place. In addition, because students slowly develop understanding, they cannot take part in assessments and are not aware of what is important to learn or what is correct. The teacher's tacit knowledge of a subject's content is expressed in terms of lesson plans and teaching practices. The students become passive recipients of the teacher's feedback on summative assignments, and their understanding of the subject is developed through more or less random revelations, called assessment of learning in the model. This is referred to as an implicit student-passive community because the goals are difficult to access (they are only communicated indirectly through learning activities) and because the students do not actively participate in goal formulation or assessments.

## *2. Explicit student-passive AfL communities*

The second step in development is described at the bottom left in our model. These schools have begun to make improvements in the development of assessments and have begun to formulate goals. This is partly because of legal requirements and partly owing to local curricula. This approach is typical of schools that are beginning to implement an AfL approach, but have not been able to develop theories of action among teachers to explain the meaning of the AfL approach or its implications for educational practices. Borgheim has elements of this assessment culture. The English teacher's instruction approach in the upper secondary school is an example. The teacher worked well with goals and criteria but only involved students in assessments to a limited extent. Assessments among the students were largely understood as summative assessments.

Teachers must participate in discussions regarding what the curriculum goals mean and how the students' achievements are to be assessed. Often, the goals are hung on walls in the classroom, written on the board, or published in work plans. Teachers consider this process demanding, but also educational and useful because it is directly related to instruction; however, the pupils are not involved. It seems that teachers (and school leaders) must learn to formulate goals and assessment criteria before they feel comfortable with involving the students. These school cultures are explicitly student-passive. Such schools can be characterised by intense efforts to establish AfL communities based on national and local target

formulations. The practical use of goals and criteria is often visible in the learning environment: the goals are written on the board, located on the school's learning platform, or included in criteria sheets in the classrooms. Parents regularly receive information about the goals for student learning. A consequence of this approach is that students could become passive recipients of a steady stream of small and large goals. The pupils may not be involved in the interpretation of the goals, either, and teachers regard them as known and understood once the students are informed. Teachers can also have different perceptions of the usefulness of this approach, and there can be different levels of loyalty to the effort (not everyone believes this is worthwhile, and some may consider it bureaucratic). This is referred to as an instrumental understanding of AfL. The pupils are loyal to the goals to a different extent, but they do not always understand the content.

### *3. Explicit student-active AfL communities*

During the third step of development, teachers have ventured into an uncertain and difficult landscape: they formulate goals and criteria with the students, and the students are more involved in the process of assessing themselves and one another. Instruction is characterised by dialogues regarding what to learn, how to determine the right answer and good performance, and how to use goals and criteria to support one another. Some teachers show examples of previous students' products so that students can identify the characteristics of good work in the content area. Others use scaffolding tools, such as model texts and printer frames. Still, considerable efforts are made to explain goals and criteria, and an emphasis is placed on the expectation of goals and criteria being visible. This is referred to as an explicit student-active school culture, and it is characterised by assessments being discussed with all parties involved, referred to as assessment for learning. Classrooms are less characterised by one-way communication related to goals and are characterised by active discussions and inquiry-based teaching to a larger extent. Langnes features teachers who have been shifting towards a social constructivist approach. The teachers have developed practices in which they apply assessments for learning to adapt instruction to the context they teach. They seem to be clear leaders with clear academic and social interaction frameworks and followed up on the work of individual students through feedback that facilitates learning in

co-operation with parents. Their classroom management approach and expectations also seemed to motivate the students.

#### *4. Integrated student-active AfL communities*

It could be assumed that clear goals and active students comprise the third and final stage in the development of an appraisal culture. The requirements of national authorities have at least indicated that this is the desired situation in schools. O'Donovan et al. (2006) claimed that a culture characterised by explicit expectations and active students promotes the individual student's understanding of professional expectations. Although students are active participants, individual understanding is ultimately emphasised. Thus, O'Donovan et al. (2006) proposed a fourth assessment culture that considers the social factors of an assessment culture to a greater extent. These schools emphasise a learning environment that encourages different forms of participation in a professional practice community. Paradoxically, goals, criteria, and similar explicit practices appear to play a less central role in this school culture. Langnes also serves as an example of a school that can be placed in quadrant four in the model (Figure 1). Although the teachers at this school used a wide range of practices, it was not the practice itself that constituted the valuable aspects of the AfL community at the school.

The central goal of the learning environment is not to communicate goals to the students; rather, in a subtler way, the academic practices that characterise the different school subjects are socialised. *Academic practices* refer to the subject-specific ways to read, write, discuss, and analyse different subjects. Therefore, it is referred to as an implicit student-active AfL community. Learning occurs in an environment that involves participation in a larger academic community. Assessments, both formative and summative, are key elements in such a community because students absorb academic expectations through participation in formal and informal discussions regarding what characterises a profound understanding or a high level of knowledge within the field of knowledge.

The teachers in Langnes clearly stated that their own understanding of assessments evolved because of common learning processes in the organisation. Testing and sharing experiences, along with more formal further education for teachers, have strengthened the shared competence, which has

anchored the assessments of student learning processes. There are thus close parallels between the teachers' collective learning processes in the school development context and the procedural understanding of the assessments of learning in the classroom. The assessments have been "embedded" and integrated into other teaching and learning processes.

## Discussion

Explicit goals can be understood as scaffolding for teachers and schools related to learning and assessments. Many teachers in Norway have traditionally been accustomed to applying content-oriented curricula. After the educational reform and the new curriculum were implemented in Norway in 2006 (Ministry of Education and Research, 2006), the goal-oriented structure was new and unknown to many education professionals, and it has required a considerable amount of effort to understand how the changes relate to instruction, academic content, and student learning. In this sense, the explicit expectations of goals and criteria can be understood as a stage in a process during which professional practitioners develop assessment skills, and schools develop a learning environment and AfL communities which are more valid, more learning-supportive, and more responsible. Once a stronger community of practice is developed, it is easier to take additional steps to involve students in assessments and to move from the use of explicit tools to a greater focus on the various academic practices that students should master.

Schools that emphasise a cultivation of AfL communities are motivated to achieve explicit goals in local development work. These schools have concluded that an excessive emphasis on visible learning goals does not necessarily promote pupils' learning and therefore prioritise students' understanding of what they will learn through more informal exchanges, such as continuous dialogue and high student participation during various learning activities. O'Donovan et al. (2006) argued that the importance of learning goals should be decreased in favour of increased student participation. In the Norwegian context, this may seem surprising because the regulations of the Education Act require that the goals are known to students. O'Donovan et al. (2006) pointed out that, in practice, it is difficult to formulate learning goals and assessment criteria that meet the demands of both professional precision and practical utility. For example, it can

be difficult for students to make use of such tools because they do not understand them or because they lack knowledge of the context in which they should be used. While O'Donovan et al. (2006) found that this is a challenge for students at the university level, there is no doubt that pupils in primary and secondary education experience similar difficulties. They also argued that learning situations should combine explicit expectations with the transfer of knowledge through socialisation processes in which students gain experience and acquire knowledge through observation, imitation, and practice, and they emphasised that the four stages or cultures are not mutually exclusive. Rather, practices and perspectives can be incorporated from the other stages. This is especially true of the last two AfL communities in the model (Figure 1).

Teachers who consider assessments in a broader context can develop an understanding even outside the school context. Fullan (2001, p. 117) stated that the ability to participate in major discussions regarding testing and assessments can be considered a component of assessment competence: “assessment literacy is a powerful coherence maker”. In other words, when students and teachers have high assessment skills, they are better able to create meaningful relationships between the activities and contexts that occur within the framework of the learning activities. Such meaning-making processes should be understood as central to students' experiences and understanding of the links between teaching, assessments, and learning in school. Goals and criteria can be important tools for both students and teachers during these processes, but a strong emphasis on student participation and shared understanding leads to a better understanding of the relationships between the assessments and other aspects of students' learning processes, which is equally important. Thus, assessments do not only involve the collection of data regarding the students' “dividends” or a basis for modifying instruction approaches. These aspects are necessary but insufficient in terms of the formation of a practice community. The culture of appraisal is also characterised by teachers and students appreciating certain types of learning, which involves active students who contribute to one another's learning processes and teachers who learn and develop new practices continuously, school leadership that facilitates and expects teachers to collaborate on assessments, and a close co-operation between schools and parents regarding student development.

Researchers, textbook authors, students, teachers, parents, school leaders, school owners, and national authorities are involved in the assessment development of schools, and strong AfL communities are required to discuss key questions regarding assessments. AfL practices do not only include the implementation of described methods; tools must be adapted to teachers' instruction approaches, age groups, formal assessment systems, and the context in which assessments are conducted. An optimal learning outcome is therefore dependent on the teacher's understanding of the theoretical basis for assessments of learning and on the teacher's ability to analyse and further develop practices in a formative direction. To accomplish this on a large scale and in a sustainable manner, there is also a need for development-oriented school management and teachers (Hargreaves & Fullan, 2012). It is therefore considered a professional commitment for teachers and school leaders to participate in conversations regarding the theoretical and practical aspects of assessments to obtain advanced insights into the importance of assessments for teaching and learning at schools.

## Implications

The model used as an analysis tool in this study may serve as a useful tool for schools that plan to map and further develop their assessment cultures. The model can be used as a navigation tool for developing assessment practices that allow students to develop an understanding of academic goals, to participate in learning, and to understand their own learning processes. In particular, it can be useful in cases in which teachers can modify their own assessment practices when students are less satisfied with the teachers' practices. One example is a school in which teachers work conscientiously with learning goals and assessment criteria without the involvement of pupils (explicit student-passive approach). In this type of school, teachers have developed an understanding of assessments for learning as a way to inform students of their goals without the involvement of the class in determining what makes the students actually learn. While some students may prefer this type of school culture, others may be frustrated because they do not fully understand the learning goals. Similarly, some teachers may prefer established procedures regarding how to communicate goals to students, while other teachers may become frustrated if the system is perceived as rigid or slightly adapted to the differences in subjects. The purpose of the

model is thus to illustrate the way tensions and contradictions in schools' assessment cultures can occur when implementing new routines or practices related to assessments.

The model can also be transferred to different levels of management at schools. Establishing AfL communities is not only important at the classroom level but also at the system level. The traditional approach involves assessment practices in which teachers work individually with different approaches to, and understandings of, assessments. The explicit approach is expressed through the work of teachers and schools when defining learning goals. In an integrated student-active culture, assessments are discussed in class, and learning goals are a point of negotiation between teachers and students. Integrated student-active AfL communities exist when a school has developed a common understanding of assessments, has established good assessment practices that act as natural parts of school activities, and has developed assessment competence at all levels of the organisation. In such a community, the primary goal is not only to communicate or construct goals and criteria for learning but also to establish a variety of informal activities in which teachers and students participate in knowledge exchanges and work with specific problems and tasks. These practice cases must be managed and cultivated by the teacher at the classroom level and by the school supervisor at the system level. The main emphasis is on tasks and knowledge exchanges rather than on formal procedures, such as goals and criteria.

The model can also serve as a theoretical model to understand the relationship between the development of AfL communities (Hill, 2016) and the various dimensions that comprise the AfL approach, which places the student in the centre of the learning community in which the assessment practices are open to all so that students can fully understand and evaluate their own progress (Elwood & Klenowski, 2002). In addition, new theories related to an AfL approach could supplement existing theories and models.

## Limitations

Although a small number of schools were selected, the qualitative material provides opportunities for understanding the local context and for obtaining more detailed knowledge of the different practices and understandings of individual assessments. It should be emphasised that the model does not

guarantee successful assessment developments, and it is unclear whether visible learning goals are the only approach to developing instruction practices. Like all theoretical models, it has limitations. It is also important to note that procedures which ensure both reliability and strong validity chains are underlying premises of the quality of assessments. If the operationalisation of the competence objectives in the curriculum is not done in an appropriate and insightful way, achievements in learning are less explicit. Implementing curriculum requirements for learning involves comprehensive interpretation by individual teachers. The quality of the individual learning goal is therefore as important as the degree of visibility or clarity, whether the subject is social science or writing as a basic skill. Nevertheless, the data showed that some schools have moved in similar directions with visible goals through an increased emphasis on student participation and a few schools to a fourth phase in which a greater focus on participation and dialogue contributed to further development of a community of practice.

## References

- Absolum, M., Flockton, L., Hattie, J., Hipkins, R., & Reid, I. (2009). *Directions for assessment in New Zealand (DANZ): Developing students' assessment capabilities*. Wellington: Ministry of Education.
- Assessment Reform Group. (1999). *Assessment for learning: Beyond the 'black box'*. Cambridge, UK: University of Cambridge School of Education.
- Baird, J.-A., Hopfenbeck, T. N., Newton, P., Stobart, G., & Steen-Utheim, A. T. (2014). *State of the field review assessment and learning* [Report for the Norwegian Knowledge Centre for Education.] Oslo, Norway. <https://doi.org/10.1016/j.celrep.2015.12.030>
- Birenbaum, M., Kimron, H., & Shilton, H. (2011). Nested contexts that shape assessment for learning: School-based professional learning community and classroom culture. *Studies in Educational Evaluation*, 37, 35–48.
- Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2010). *Assessment for learning: Putting it into practice*. London, UK: Open University Press.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7–74. <https://doi.org/10.1080/0969595980050102>
- Black, P., & Wiliam, D. (2018). Classroom assessment and pedagogy. *Assessment in Education: Principles, Policy & Practice*, 25(6), 551–575 <https://doi.org/10.1080/0969594X.2018.1441807>



- Booth, B., Hill, M. F., & Dixon, H. (2014). The assessment capable teacher: Are we all on the same page? *Assessment Matters*, 6, 137–157.
- Carless, D. (2005). Prospects for the implementation of assessment for learning. *Assessment in Education: Principles, Policy & Practice*, 12(1), 39–54. <https://doi.org/10.1080/0969594042000333904>
- Clandinin, J. D., & Connelly, M. F. (1996). Teacher’s knowledge landscapes: Teacher stories. Stories of teachers. School stories. Stories of schools. *Educational Researcher*, 25(3), 24–30.
- Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. New York, NY: Teachers College Press.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: SAGE.
- Datnow, A., & Hubbard, L. (2016). Teacher capacity for and beliefs about data-driven decision making: A literature review of international research. *Journal of Educational Change*, 17(1), 7–28. <https://doi.org/10.1007/s10833-015-9264-2>
- DeLuca, C., Luu, K., Sun, Y., & Klinger, D. (2012). Assessment for learning in the classroom: Barriers to implementation and possibilities for teacher professional learning. *Assessment Matters*, 4, 5–29.
- Elwood, J., & Klenowski, V. (2002). Creating communities of shared practice: The challenges of assessment use in teaching and learning. *Assessment and Evaluation in Higher Education*, 27(3), 243–256.
- Fullan, M. G. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.
- Geertz, C. (1973). *The interpretation of cultures*. New York, NY: Basic Books.
- Hargreaves, A. (2013). Assessment for learning and teacher learning communities: UK teachers’ experiences. *Teaching Education*, 24(3), 327–344.
- Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York, NY: Teachers College Press.
- Hayward, L. (2015). Assessment is learning: The preposition vanishes. *Assessment in Education: Principles, Policy & Practice*, 22(1), 27–43. <https://doi.org/10.1080/0969594X.2014.984656>
- Hayward, L., & Spencer, E. (2010). The complexities of change: Formative assessment in Scotland. *Curriculum Journal*, 21(2), 161–177. <https://doi.org/10.1080/09585176.2010.480827>
- Hill, M. F. (2016). Assessment for learning community: Learners, teachers and policymakers. In D. Wyse, L. Hayward, & J. Pandya (Eds.), *The SAGE handbook of curriculum, pedagogy and assessment* (pp. 772–789). London, UK: Sage.
- Hodgson, C., & Pyle, K. (2010). *A literature review of assessment for learning in science*. NFER: Slough.

- Hopfenbeck, T. N., Flórez Petour, M. T., & Tolo, A. (2015). Balancing tensions in educational policy reforms: Large-scale implementation of assessment for learning in Norway. *Assessment in Education: Principles, Policy & Practice*, 22(1), 44–60. <https://doi.org/10.1080/0969594X.2014.996524>
- Hopfenbeck, T. N., Tolo, A., Flórez Petour, M. T., & Masri, Y. El. (2013). *Balancing trust and accountability? The assessment for learning programme in Norway: A governing complex education systems case study*. Paris: OECD Publishing.
- Hutchinson, C., & Hayward, L. (2005). The journey so far: Assessment for learning in Scotland. *Curriculum Journal*, 16(2), 225–248. <https://doi.org/10.1080/09585170500136184>
- Jiang, H., & Hill, M. F. (2018). Teacher learning and classroom assessment. In H. Jiang & M. F. Hill (Eds.), *Teacher learning with classroom assessment* (pp. 1–17). Singapore: Springer.
- Kennedy, A. (2005). Models of continuing professional development: A framework for analysis. *Journal of In-Service Education*, 31(2), 235–250. <https://doi.org/10.1080/13674580500200277>
- Klenowski, V. (2009). Assessment for learning revisited: An Asia-Pacific perspective. *Assessment in Education: Principles, Policy & Practice*, 16(3), 263–268. <https://doi.org/10.1080/09695940903319646>
- Marshall, B., & Jane Drummond, M. (2006). How teachers engage with assessment for learning: Lessons from the classroom. *Research Papers in Education*, 21(2), 133–149. <https://doi.org/10.1080/02671520600615638>
- Ministry of Education and Research. (2006). *The national curriculum Kunnskapsløftet*. Oslo: Author.
- NESH. (2006). *Forskningsetiske retningslinjer for samfunnsvitenskap, jus og humaniora* [Research ethical guidelines for social science, law and the humanities]. Oslo, Norway: Norwegian National Committees for Research Ethics. Retrieved from: <https://www.etikkom.no/forskningsetiske-retningslinjer/Samfunnsvitenskap-jus-og-humaniora/>
- Nordenbo, S. E., Larsen, M. S., Tiftikçi, N., Wendt, R. E., & Østergaard, S. (2008). *Lærerkompetanser og elevers læring i barnehage og skole*. Et systematisk review utført for Kunnskapsdepartementet, Oslo, Universitetet i Aarhus.
- O'Donovan, B., Rust, C., Price, M., & Carroll, J. (2006). “Staying the distance”. The unfolding story of discovery and development through long-term collaborative research into assessment. *Brookes EJournal of Learning and Teaching*, 1(4), 1–4.
- Pryor, J., & Crossouard, B. (2008). A socio-cultural theorisation of formative assessment. *Oxford Review of Education*, 34(1), 1–20. <https://doi.org/10.1080/03054980701476386>
- Riessman, C. K. (2008). *Narrative methods for the human sciences*. Los Angeles, CA: Sage.

- Sandvik, L. V., & Buland, T. (2014). *Vurdering i skolen. Utvikling av kompetanse og fellesskap. Sluttrapport fra prosjektet 'Forskning på individuell vurdering i skolen' (FIVIS)*. Trondheim: NTNU and SINTEF.
- Shulman, L. S., & Shulman, J. H. (2004). How and what teachers learn: A shifting perspective. *Journal of Curriculum Studies*, 36(2), 257–271. <https://doi.org/10.1080/0022027032000148298>
- Stake, R. E. (2005). Case Studies. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 443–454). Thousand Oaks, CA: Sage Publications.
- Swaffield, S. (2011). Getting to the heart of authentic assessment for learning. *Assessment in Education: Principles, Policy & Practice*, 18(4), 433–449. <https://doi.org/10.1080/0969594X.2011.582838>
- Tam, H. P., & Lu, Y. J. (2011). Developing assessment for learning in a large-scale programme. In R. Berry & B. Adamson (Eds.), *Assessment reform in education. Education in the Asia-Pacific region: Issues, concerns and prospects* (Vol. 14, pp. 185–196). Dordrecht, The Netherlands: Springer.
- Thompson, M., & Wiliam, D. (2008). Tight but loose: A conceptual framework for scaling up school reforms. In C. Wylie (Ed.), *Tight but loose: Scaling up teacher professional development in diverse contexts* (pp. 1–44). Princeton, NJ: Educational Testing Service (ETS).
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development*. Wellington: Ministry of Education.
- Timperley, Helen. (2011). *Realizing the power of professional learning*. New York, NY: Open University Press. [https://doi.org/10.1111/j.1467-8535.2012.01297\\_6.x](https://doi.org/10.1111/j.1467-8535.2012.01297_6.x)
- Wiliam, D. (2011). What is assessment for learning? *Studies in Educational Evaluation*, 37, 3–14. <https://doi.org/10.1016/j.stueduc.2011.03.001>
- Xu, Y., & Brown, G. T. L. (2016). Teacher assessment literacy in practice: A reconceptualization. *Teaching and Teacher Education*, 58, 149–162. <https://doi.org/10.1016/J.TATE.2016.05.010>

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