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Nordic Journal of Digital Literacy,
vol. 9, Nr. 3-2014 s. 194–215
ISSN Online: 1891-943X

PEER REVIEWED ARTICLE

Teachers' Approaches to Digital Stories

Tensions Between New Genres and Established Assessment Criteria

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ABSTRACT

New practices in technology-rich schools call for teachers who can be responsive to change. This article explores a group of Norwegian upper-secondary school teachers' approach to students' digital stories – a multimodal genre recently introduced to many classrooms. The concept of *inscription* (Latour, 1992) is used in an abductive analysis to show teachers' struggle with identifying the premises of digital stories and, consequently, how to assess such texts. The analysis demonstrates that established assessment conventions tend to guide teachers' assessment of digital stories, thereby resulting in tensions between traditional and emerging practices.

Keywords

Teachers, professional learning, assessment, digital stories, genre, sociocultural, inscription

INTRODUCTION: SETTING THE SCENE

Technology-rich schools call for teachers who can relate professionally to technological affordances (Gibson, 1977) and changing practices. The emergence of digital tools has had a significant impact on how people express themselves and communicate (Lambert, 2012), and technologies have enabled digital stories to emerge in school. Because digital stories are new to most teachers, they must negotiate the criteria to guide their evaluation; the manner in which upper-secondary teachers deal with this is explored in the article.

Like stories in general, digital stories tell life narratives. However, a digital story is short (2-4 minutes) and combines verbal, visual, moving, and auditory expressions. Consequently, assessing a digital story involves considering the content of the story as well as how different modes, in combination, strengthen or weaken a message. Out-of-school digital stories are usually about episodes that changed the direction of the storyteller's life or funny anecdotes from everyday life (Mediesenteret, n.d.). The short, multimodal style and the



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emphasis on life-stories told with a personal voice suggest that digital stories can be treated as a particular genre within this text.

Interest in digital stories emerged in the 1990s when the Centre for Digital Storytelling arranged its first workshop in Berkeley with the intention of giving a voice to ordinary people. Since then, several workshops have been arranged around the world to promote agency and self-assertiveness through sharing artistic and personally expressive stories (Haug, Jamissen, & Ohlmann, 2012). Silseth (2013) observes that internationally, educational interest in digital storytelling has emanated from the idea that such stories can be used to bridge potential gaps between youth cultures and school cultures. Silseth further maintains that because an appreciation for students' personal voices seems to motivate them to engage in digital storytelling, the potential of such storytelling largely depends on how much space a school can offer for student agency.

In Norway, teachers' interest in digital stories has evolved since the national curriculum was launched in 2006 (Ministry of Education and Research, 2006). This curriculum lists digital literacy as a basic skill to be developed in all subjects, on par with oral skills, writing, reading, and numeracy. In terms of the curricula aims, teachers teaching Norwegian are given the particular responsibility of developing students' multimodal competencies, and many have recognized digital storytelling as a relevant activity.

People's increased interest in multimodal texts has expanded the idea of what a text is, and in the subject of Norwegian, the production of multimodal texts has put the privileged position of the verbal text under pressure. To contribute to knowledge about the process of developing an in-school perspective on a technology-mediated genre, I have posed the following questions to guide my analysis:

What challenges are faced by teachers who assess students' digital stories?

How do teachers negotiate new criteria for assessing digital stories?

The data consist of transcripts from a two-hour audio-recorded meeting with six Norwegian teachers who gathered in a private home one Thursday evening to become more "confident about how to supervise, assess, and create composite texts" (meeting invitation, March, 08, 2010). The strategies used to negotiate the criteria are analyzed in order to understand how teachers work when they collaborate to develop practices.

The school subject in question is Norwegian. Nevertheless, because multimodal digital production enters the learning activities in different subjects, the article should be of interest not just for L1 teachers but also for other educators who engage in such productions.

DEVELOPING INTERSUBJECTIVITY

In all OECD countries, “there is widespread recognition that evaluation and assessment frameworks are key to building stronger and fairer school systems” (Education and Training Policy Division of the Directorate for Education, 2009). According to the OECD Reviews of Evaluation and Assessment in Norway (Nusche, Earl, Maxwell, & Shewbridge, 2011), the national assessment system lacked clear criteria and common grading practices; therefore, the OECD recommends that Norway develop national criteria. However, recent studies show (Berge, Evensen, Hertzberg, & Vagle, 2005) that over time, the national community of Norwegian teachers has developed a level of intersubjectivity (Matusov, 2001) – a sense of agreement about what characterizes excellent, good, or less impressive student texts. This does not imply total consensus, but teachers agree about, for example, genre expectations and are thereby able to understand one another’s arguments when assessing students’ answers to tasks. Such agreement is particularly present in subjects with exam assessments. The use of external censorship in grading Norwegian exams is considered a means of enhancing transparency and shared knowledge within the community of assessing teachers (Berge et al., 2005). Consequently, exams seem to calibrate teachers’ grading practices (Prøitz & Borgen, 2010).

A typical situation in school is students’ exploration and adaptation of the established education rules and codes communicated by teachers (Roth & Lawless, 2002; Sfard, 2001). However, integrating digital stories in school subjects leads to a situation in which students produce and teachers assess responses to technology-mediated assignments without policy guidance or rules and conventions that regulate how to do so. This might lead to a precarious situation whereby the manner in which teachers approach multimodal productions will impact on what a digital story can become in school and the extent to which it counts as “valid” knowledge.

Assessment of digital stories

The titles of some articles about digital storytelling in non-educational contexts indicate that digital storytelling is a valuable activity that should be of educational interest. Examples include *Crafting an Agentive Self* (Hull & Katz, 2006) and *Mediating Social Thought through Digital Storytelling* (Nixon, 2009). However, because digital stories are embedded in and infused with characteristics developed out of school and for non-educational purposes, teachers are insufficiently knowledgeable about the premises of the genre. Consequently, intersubjectivity (Matusov, 2001) may not have emerged among teachers who assess digital stories. A search for articles indicates that research on digital storytelling within schools is restricted, and knowledge about the assessment of digital stories is particularly limited. A search (June 04, 2012) for peer-reviewed articles in Academic Search Premier using the keywords “assessment,” “teacher,” “digital,” and “story” produced no results.

Following the same strategy in ERIC produced three articles – one about the promises of digital storytelling as a pedagogical tool in higher education (Clarke & Adam, 2012); one reporting on pre-service teachers' learning from producing animated stories (McKnight, Hoban, & Nielsen, 2011); and the last focusing on what it takes to guide students through digital storytelling projects in art classrooms (Hutcheson, 2008). Even if a significant amount has been written about multimodality (e.g., Kress, 2010; Kress & van Leeuwen, 2001), teachers appear to both lack experience with and researched-based knowledge about how to assess digital stories. Despite this, teachers are left with the task of assessing students' digital stories.

Hakkarainen, Palonen, Paavola, and Lethinen (2004) have highlighted the fact that the professional development of knowledge and practice is enhanced through communities of networked expertise working together on "their edge of competence," searching for new insights and solutions to problems. Such processes take time and often trigger insecurity and feelings of chaos. This might explain why Wilson and Berne (1999), in their review of teachers' professional development, find that teachers seldom engage in such processes. For instance, they warn about an anti-academic drive-in culture emerging among teachers: they expect to be provided with tricks and quick-fix solutions to overcome their challenges. Other scholars, like Hargreaves (2010), are concerned that teachers tend to work as individuals within a conservative school system. Consequently, the observed meeting will add to knowledge about how teachers develop practices and will illustrate how teachers, through the establishment of criteria for assessing digital stories, impact on how the in-school perspective on the digital story can emerge and be articulated.

Studying teachers' negotiation of criteria for assessing digital stories: A framework

A fundamental principle in sociocultural theories is that cultural artifacts mediate social practices (Vygotsky, 1978). Digital stories and assessment criteria are both artifacts that mediate practices. This study investigates mediated practices as they are articulated in an informal setting (a private home) but within an institutional context (schooling). Both dialogic (Bahktin, 1981; Wertsch, 1991; Vygotsky, 1931) and systemic (Engeström, 1987) approaches are included in the theoretical framework used to explore what characterizes the observed teachers' negotiation of criteria for assessing digital stories.

Cultural Historical Activity Theory (CHAT) (Engeström, 1987) describes systemic tensions as springboards for institutional learning and the development of practices. Tensions can emerge when, for instance, traditional practices no longer work well. However, the need states arising from tensions do not necessarily trigger the expansive development of new practices. A need state "may be 'resolved' through regression or through expansion" (Engeström, 1987, p. 166). CHAT (Engeström, 1987) provides a framework for analyzing and understanding institutional expansive learning or the lack thereof, but the

theory is systemic and does not describe dialogic strategies that promote people's expansive, rather than regressive, responses to challenges. However, the theories of Vygotsky (1931), Bakhtin (1981), and Wertsch (1991) include descriptions of what amounts to expansive strategies. By triggering exploration, these strategies can potentially help people broaden their horizons regarding possibly expansive future practices.

First, Vygotsky (1931) describes imagination as vital to learning – both for children and adults. The interweaving of fantasy and conceptual thinking makes people rework or recombine experiences in new ways. Accordingly, this requires an inner freedom of thought, action, and cognition as well as a mastery of thinking in concepts. Bakhtin (1981) provides a second strategy, which is similar to travelling (Burton, 2001). Travelling across cultural boundaries into foreign terrain provides people with outside perspectives on their own identity as well as on the conventionalized practices and social languages within cultures. Thus, the ground is clear, new ideas can be explored, and people can overcome the limits of an established discourse. Wertsch (1991) adds a third strategy – voicing and relating different perspectives or worldviews. Access to rich perspectives enhances meaning-making and “our capacity to recognize specific speech genres and their patterns of privileging;” it also “allow[s] us to free ourselves from undesirable patterns and create new patterns” (1991, p. 147).

The more voices we encounter, the more opportunities we have to learn about the world (Ball & Freedman, 2004). In this article, the strategies described above are taken to provide teachers with access to varied perspectives and ideas that promote expansive learning (Engeström, 1987). Consequently, these strategies constitute a repertoire of expansive strategies upon which teachers can draw. Conversely, strategies that push forward traditional practices without critically exploring their contemporary relevance are considered regressive.

DATA AND METHODOLOGY

This article reports on one out of three analyses that together shed light on upper secondary school teachers' experiences with the affordances (Gibson, 1977) and challenges that emerge when high school students have access to computers and digital resources (Aagaard & Lund, 2013; Aagaard, 2014). In this particular article, a meeting with Ruth, Therese, Katherine, Rose, Henry, and Tony (pseudonyms) is analyzed. All the informants teach Norwegian to second graders at Sutherland upper secondary school. The issue under discussion is the assessment of digital stories.

The data constitute a case of purposive sampling (Oliver, 2006), which implies that the teachers participated in the study on the basis of their interest and availability. Consequently, they are not necessarily representative speakers of

the larger community of teachers teaching Norwegian. Nevertheless, their institutional knowledge of traditions, roles, regulations, and ideas, which has developed over a long historical span, suggests that many teachers working in technology-rich schools recognize similar challenges to those faced by the observed teachers.

If we want to produce accurate insights into teachers' efforts to develop professional practices, we should pay careful attention to the meanings they develop within their context (Court, 2004). However, rich contextual descriptions are needed to convey as much as possible about the participants' worlds (Geertz, 1973). Ruth invited her colleagues to her home on a Thursday evening to discuss professional issues while sharing some food and wine. Katherine is a soon-to-be-retired teacher. Rose is the youngest, but all are experienced and have worked with digital storytelling in school. Therese and Rose are quieter than the others, but the meeting has space for both disagreement and uncertainty. All laugh a lot and make fun of their own and each other's comments, roles, and discussions. The atmosphere made it easy to maintain my role as a participant observer (Silverman, 2006) with an open approach. In general, I kept silent and took field notes, but at the end of the meeting, I asked the teachers to elaborate on what they meant by "reflection" – a concept used extensively throughout the meeting.

The private setting of the meeting transcended the contextual boundaries of the teachers' workplace and allowed for the free sharing of knowledge, reflections, experiences, meanings, and feelings compared to a school-meeting held during work hours. Consequently, the observation gave rich insights into the challenges emerging from assessing digital stories and how teachers negotiate the criteria for assessing this new genre.

In Norway, teachers recently reacted quite strongly against a 7.5 school-bound workday and argued for individual freedom to decide when and where to plan and evaluate. That teachers are used to freedom suggests that my informants' situation is quite typical for Norwegian teachers: the observed teachers rarely meet to discuss fundamental pedagogical issues or to collaborate on developing educational practices during work hours at the school. However, the setting and timing of the meeting demonstrated the teachers' willingness to personally invest in such processes. Therefore, the meeting is analyzed as a typical instance of an extended work environment that yields data about how the observed teachers deal with a particular technology-mediated challenge: the assessment of digital stories. The results from this study can potentially guide the analysis of similar situations in other contexts (Kvale, 1996).

Steps of analysis

In order to enhance the validity of the abductive analysis (Alvesson & Sköldb-berg, 2009) described in this section, the colleagues were part of the process

(Henderson & Jordan, 1995). On four occasions, the preliminary findings and explanatory power of the theoretical and analytical framework were discussed with both Norwegian scholars and international scholars at UC Berkeley.

First, an inductive analysis was conducted. A colleague and I listened to the audio record (130 minutes), and transcripts were read several times to ensure that the teachers' descriptions were accurate (Boote & Beile, 2005). Next, a table summarizing the main themes discussed by the teachers was drawn. The many challenges debated were noted in a separate column. Moreover, the teachers' suggestions on how to solve different challenges were registered, for example, "We need to add a written text or talk to the digital story to reveal students' ability to reflect." The final step of this inductive approach was to identify and register the various references that the teachers drew upon as they spoke. A typical example was knowledge of "established assessment practices" while a less typical was knowledge of digital "out-of-school practices."

The subsequent analytical phase was theory-driven. "Expansive strategies" represented a useful theoretical concept during this phase. Teachers' efforts to "travel" into students' life-worlds by thinking about how they change were recognized as a manifestation of contextual "travelling" (Bakhtin, 1981). Imagination (Vygotsky, 1931) was registered when teachers drew future scenarios or talked about how things could possibly be done differently. The teachers' exchanging of contrasting ideas and their raising of thought-provoking questions were registered as a perspective-richening (Wertsch, 1991) strategy.

In this abductive analysis, I searched for "the underlying pattern" explaining the individual case (Alvesson & Sköldbberg, 2009). According to Alvesson and Sköldbberg (2009), we should be aware that such analyses allow mistakes. However, the resources and strategies used in a discourse are usually characteristic of a community and are not unique to an event (Lemke, 2000). Therefore, the observed meeting is analytically seen as an instance that has ecological validity beyond the contextual boundaries of the single meeting.

In particular, the concept of "inscription" (Latour, 1992) was used to explore the underlying challenges that seemed to emerge when teachers tried to re-employ established assessment rules in their assessment of digital stories. The next section elaborates why this is so.

Examining the social impact of non-humans: An analytical concept

A safety belt alarm in the car alerts us to fasten our seatbelts and obey traffic rules even if we might want to break them. To produce such an alarm, the manufacturer takes into account knowledge about the habits of today's drivers, modern technical possibilities, the society's interest in security, etc. The car's safety belt alarm is thereby embedded with intentions. As such, it is given power to impact social practices (Latour, 1992).

The safety belt alarm exemplifies an inscription. Latour (1992) describes inscription as “the translation of any script from one repertoire to a more *durable* one” (p. 253) and suggests that the impact of an inscription on social practices can be understood by reflecting upon how we would have acted if the particular non-human phenomenon did not exist.

During the data analysis, two inscriptions were of particular interest: established assessment rules and digital stories. Rules may not necessarily be formal; they can be further lines of thought or conventions that function as guidelines for conventional assessment practices. Informal rules about how didactical practices should be conducted tend to emerge from theories and manifest in teachers’ talk and typical practices. They are made durable when they take hold and guide educational activities. Some might object with the view that inscriptions only refer to material things. However, assessment rules become inscriptions when they become institutionalized and function as carriers of repeated actions and reflections.

An example of an established assessment rule is that learning outcomes should be documented by individual students and controlled by the teacher. In addition, typically, the assessed documentation is of a mono-modal, verbal character and is developed without considering the role of technology. These characteristics add to a particular inscription.

The digital story is also treated as an inscription because of its typicality and the intention embedded in the genre. As one of its developers, The Center for Digital Storytelling has inscribed the genre with characteristics and ideas. First, digital stories are presented as an instrument that promotes social justice because digital storytelling centers have typically promoted the voice of marginalized youth by creating and sharing their life stories. Second, the center suggests that producing a digital story should be a creative process, and no formula or template for making a good story should be produced because people see, hear, and perceive the world in different ways. Nevertheless, examples listed on their web page under headings, such as identity, cancer, youth, etc., leave the impression that a typical digital story is a short, personal, multimodal story about something important in life. One example is the moving story of Geeta Suberi – a Nepalese girl who, within three minutes, tells about how she grew to be independent. Finally, the center emphasizes that the sharing of personal life stories on the web calls for an audience to “listen deeply” to show the producer respect (Center for Digital Storytelling, n.d.).

Established assessment rules and digital stories are designed to stimulate radically different social practices. Consequently, the ideas and intentions embedded in them are very different. Even if established assessment rules are not designed to solve the challenges that emerge from assessing digital stories, what is already known usually represents an important point of reference when people relate to something less known. In the analysis, I pay particular

attention to the impact that established assessment rules seem to have on teachers' negotiation of criteria for assessing digital stories.

ANALYSIS AND RESULTS

The table developed during the inductive analytical phase and described under "Steps of analysis" gave an overview of what the teachers did and discussed during the meeting and showed that even if the first part of the meeting was spent going through examples of lists of criteria for assessing digital stories, most of the time was spent discussing five examples of digital stories produced by students. The assignments that gave rise to these examples were never presented. Consequently, the teachers discussed the quality of these texts without knowing the terms and conditions under which they were produced. The table also gave an overview of the different challenges discussed by the teachers during the meeting, and observing and evaluating students' reflective skills by watching the digital stories came across as their main interest and challenge. This is pursued in the following sub-section.

The difficulty of identifying learners' reflective skills in their digital stories

An analysis of the transcript revealed that the word "reflection" was used 51 times. The teachers tended to agree that reflective skills should be documented in digital stories, but they seemed to lack a shared understanding of such skills. Consequently, reflection was used in very general terms with reference to a variety of skills. However, considering the transcript as a whole, the teachers discussed the presence or absence of three types of reflective skills: reflective skills recognized as discussing, questioning, or considering topical issues; reflective skills recognized as the ability to communicate the messages "behind the words"; and reflective skills recognized in creative or artistic expressions. Toward the end of the meeting, I asked the teachers to specify what they meant by reflection, and they approached a definition. The following excerpts document their interest in the various reflective skills and show how they typically responded to the challenges that emerged from assessing digital stories.

Reflective skills recognized as discussing, questioning, or considering topics

The first type of reflection discussed was students' ability to analyze, question, or consider topics. In the excerpt that follows, the quality of "Batman 001"¹ is debated. Katherine, Therese, and Henry are especially critical of the text, which they think lacks reflections on the topic. Katherine (K) and Henry (H) argue as follows:

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1. Published on <http://www.youtube.com/ozansaklig>. The student who has produced it allows a reference.

K: The content is purely descriptive. [...] nothing is questioned.

H: I totally agree.

K: It is purely descriptive.

H: Everything is referential. No analysis anywhere [...]

K: Historical [...] Review and descriptions of development. And in that respect, it is very clever, I think.

H: And with humor, commenting on his own representation and...

K: Creative, independent, secure... [...] Okay, you can write about Knut Hamsun [Norwegian author], but then I ask... You must problematize something. What do you say about the authorship? Are there any moods to describe? Or is there something... What do you want by giving an account of that authorship?

The quotes show that “Batman 001” was considered a humorous and creative story that presented a clever review of Batman’s development. However, Katherine and Henry noted the referential style and the lack of “analysis” and “critical reflection.” Later, Katherine added that she expected the student to “problematize”, “say” something about the authorship, and “describe” moods. Moods can of course be described visually, but Katherine seemed to call for further verbal manifestations of topical reflective skills. She used rules about what to expect of a verbal text about Hamsun to guide her evaluation of the digital story. Instead of supporting the exploration of different qualities of text, this strategy made Katherine decipher the traditional school-text elements missing from the example text.

Tony (T) and Ruth (R) were opposed to the criticisms and took another approach to the text:

T: He [the student] says that... much of the audience wanted more... violence as an aesthetic instrument, and then they got that and...

K: Why... They wanted that?

T: Yeah, but, you know, that’s the point...

K: No! Descriptions...

[...]

R: But he talks a little about the development... of the person. How has the character evolved, and how has he been influenced by other cartoon characters? And [he also talks] of other social conditions. That is reflection!

By “travelling into” (Bakhtin, 1981; Burton, 2001) the text, both Tony and Ruth observed the student’s way of telling the story and concluded that the story does, in fact, document topical reflective skills. For example, the student showed the impact that people’s growing interest in violence has had on the development of both the figure and the story of Batman. As Tony and Ruth tried to make sense of the multimodal meaning of the story, they came to know the genre. Consequently, this seemed to be more of an exploratory and expansive strategy.

Despite the various ways in which Katherine, Henry, Tony, and Ruth approached the story, they all seemed to agree that students should document topical, reflective skills in digital stories.

Reflective skills recognized as the ability to communicate messages “behind the words”

Toward the end of the meeting, Katherine (K) approached a definition of the second type of reflective skill:

K: There is reflection both in [terms of]... that’s why you read fiction; there is something below... or... that is deeper than that... behind the words.

Moreover, in the digital stories, the students communicated non-explicit messages through intertextuality. Intertextuality implies that the producer of a text relates it to other texts (spoken, written, visual, or multimodal), often thinking that the reader and the producer share the knowledge or worldview that is needed to make sense of the message. Consequently, such messages are not necessarily communicated behind words but behind and between multiple semiotics. In the following excerpt, Tony (T), Katherine (K), Henry (H), and Ruth (R) demonstrate how they grapple with hidden messages in digital stories:

T: Instead of providing them [the students] with a text with an intertextuality that we understand, they create something with an intertextuality that we scarcely know. But how can we understand it then? [...]

K: They have to reveal it to us.

H: So if we don’t catch it, they have to explain the purpose.

R: Yeah, right. We must learn to recognize the references, and they must also learn not to use references that only those in their age group can relate to because it is also something about being able to write a text... write for your audience.

These teachers referred to an established assessment rule that teachers provide their students with intertextuality that teachers understand. However, students currently create texts with a level of intertextuality that they, as teachers, have trouble understanding. Tony used the Bakhtinian (1981) strategy and “travelled” into the students’ life-worlds by thinking about how they change. Being unfamiliar with the students’ references in emerging intertextual messages, Tony was at a loss and left with a problem: how can he learn to understand such messages?

Katherine claimed that students should reveal their messages to their teachers while Henry added that students should explain what they, as teachers, “don’t catch.” Even though Ruth first stated that teachers “must learn to recognize the references,” her argument that students should “write for their audience” and learn “not to use references that only those in their age group can relate to” won attention.

Multimodal texts invite producers to create complex, polyphonic, and intertextual messages. The excerpt shows that such messages were difficult for the teachers to understand and assess. Faced with this challenge, Katherine, Henry, and Ruth again turned to an established assessment rule, this time stating that students should adapt their messages to the knowledge of teachers. This response prevented the teachers from exploring the emerging multimodal social language of young people. Consequently, their response seemed to have a regressive power (Engeström, 1987) in the sense that it championed the traditional practice of students producing texts for a teacher audience; however, the idea that the audience should “listen deeply” to the digital story was ignored.

Reflective skills recognized in creative or artistic expressions

Katherine also identified a third type of reflective skill toward the end of the meeting:

K: There could be a form of creative reflection, an artistic reflection that we’ve never done anything with or related to. Really.

Katherine claimed that teachers do not relate to creative or artistic reflection in school. Again, established assessment rules guided her considerations in this case regarding the relevance of relating to creative or artistic reflection in assessments of student learning. However, a discussion followed in which Therese stated that they do grade such reflective skills; however, how it is done worried her:

Th: And it’s a little scary because it affects a student’s grade. We build on just assumptions... As when I didn’t like the music and some others liked it, and it shouldn’t affect how we assess a learner, so we must be cautious, then.

It was the tendency of teachers to grade creative or artistic reflective skills on the basis of “personal assumptions” that worried Therese. In the former excerpt, she referred to a discussion about introducing a digital story, “Bergen in Medieval Times”, with the soundtrack of “La Bomba” by King Africa. Henry (H), Katherine (K), Ruth (R), Therese (Th), and Tony (T) discuss as follows:

H: Much is good, but the choice of music, I think, is a little strange...

K: Must it be medieval music? [...] To generate interest in looking at it?

H: No, well, I think the opening... that is not medieval music, and it is cool.

R: Yes, extremely cool. [...] It creates interest, simply captivates. That's what we talk about when we are making texts. You will... the introduction is the most important because then you make the reader interested. It makes us very interested – we get the “wow... that was really good!” Yes.

Th: Yes, it's possible that I didn't know the music well enough, but I thought it was a bad match. [...]

T: I think the introduction should be a... movie in miniature style [...] I have some input, and it is not because I want to be the devil's advocate, but [...] I think it goes too fast [...] the “De la Playa.”

The excerpt exemplifies the observed teachers' tendency to focus on how they like or dislike, for example, pictures, colors, or music – singular modal “layers” of the text. In this example, Henry first pointed to what he perceived was a mismatch between the topic of the digital story and the soundtrack. After Katherine asked whether it had to have been medieval music, Henry appeared to change his mind about the suitability of the song and claimed it was “cool.” Ruth quickly responded “extremely cool.” Their tendency to refer to private assumptions based on personal likes and dislikes indicated a lack of professional language and concepts for discussing the qualities of a story expressed through multiple modes.

However, Ruth tried to support the relevance of using her “wow-feeling” as the appropriate criteria by recalling the traditional rule that students should make their readers interested through the introductory paragraph of a written text. But Therese objected and pointed to the mismatch between “La Bomba” and the medieval theme. Tony supported Therese and added that an introduction should be a “movie in miniature style.” Here, Tony “travelled” to the film industry and tried to transfer movie expectations to digital stories. Referring to the song “De la Playa” suggested that King Africa reminded Tony of an entertaining summer at the beach rather than Bergen in medieval times. This is read as an indirect critique of the song choice. Therese and Tony

approached a criterion that multimodal expressions should be combined in ways that strengthen the message of the story.

The teachers' suggestions on how to solve their challenges

Tony (T) and Ruth (R) discussed whether they, as teachers, needed to develop competencies in order to assess, for example, the visual qualities of digital stories:

T: I see that maybe we need... or at least *I* need competencies to assess the choice of colors and... [...]

R: You don't need any formal competencies to do that. You know enough to...

T: I can't even leave my home in matching clothes! And if it is...

All: Laughter.

T: No, but what works, right? "Ohhh! That was nice. Veeeeery beautiful... didn't you see the beautiful shadings...?" I imagine how this will be, and I take a look at it, and I see, and "Oh my God, I don't see any nice colors!"

Ruth objected to Tony's question and stated that they were sufficiently competent. She seemed to think that digital stories could be assessed on the basis of common sense and knowledge from established assessment practices. Tony made fun of and drew a humoristic scenario regarding his own response to a fictive colleague speaking of a "veeeeeery beautiful picture." His imagination (Vygotsky, 1931) was suggestive of an indirect objection to Ruth's claim. Support, except from Therese, remained wanting. However, another suggestion to some of their challenges won support. Tony says:

T: Could I just ask about a thing that has bothered me for a long time... [...] Johnson [a researcher and expert in the field] said that in addition to the product that they [students] produce, we must also look at the reflection process. There must be something else besides the composite text, then. A lecture or a presentation should be added and treated just as essentially in the assessment as the finished product.

Tony suggested that students should present an add-on to the digital stories in which they reflect upon the process of designing their digital stories (reasons for zooming, including a song, choosing certain fonts, pictures, etc.). Feeling "bothered" indicated that he was emotionally involved in finding ways to observe students' reflective skills. Tony cited a researcher and expert in the field and thereby showed interest in scientifically developed suggestions regarding how to assess multimodal expressions. His approach demonstrated

that of a dedicated and professional teacher. The fact that they returned to this idea several times during the meeting indicated that the colleagues recognized it as a useful response to their challenge of observing reflective skills through digital stories.

The overall impression obtained from the meeting is that the teachers' interest in this reflective text seemed to be triggered by their unfamiliarity with both the genre and the multimodal way of communicating a message. If teachers provided themselves with a text that was formulated in a familiar mode and style, we would risk this verbal presentation being given most of the weight during grading simply because it is more familiar and therefore "safer" for teachers to assess. If that were to happen, the add-on would have regressive consequences by restricting the possibilities for digital stories to be explored by teachers and gain the same educational value as verbal texts.

However, such an add-on could also promote expansive learning (Engeström, 1987) because it invites students to inform their teachers about what those teachers do not understand or cannot directly observe from watching the digital stories. In addition, it can both demonstrate teachers' interest in how young people think and communicate and mediate students' awareness of why they produce stories in a certain way.

A struggle to find "the right and good premises"

Simply arranging the meeting demonstrated that the teachers were aware that the established criteria for assessing traditional school texts were unsuitable for assessing digital stories. However, the excerpts discussed in the previous section showed that it was difficult for them to negotiate new criteria. Ruth summarized what seemed to be the main challenge:

R: We are struggling to find the right and good premises for these...
There's much they [students] can't show [in digital stories]. There is much that is impossible for them to communicate [in digital stories]...

Not knowing the premises for the fair assessment of digital stories, the teachers continued to search for qualities of digital story similar to those traditionally valued in the assessment of verbal school texts. But the same qualities did not appear, and tensions arose when the teachers realized that "there's much they [students] can't show" and "much that is impossible for them to communicate" in digital stories.

Their struggle can be better understood by showing the frequency with which the teachers referred to the different empirical categories listed. The figure confirms the impression from the excerpts that throughout the meeting, they tended to turn to what they knew from established assessment practices when they encountered difficulty in assessing digital stories.

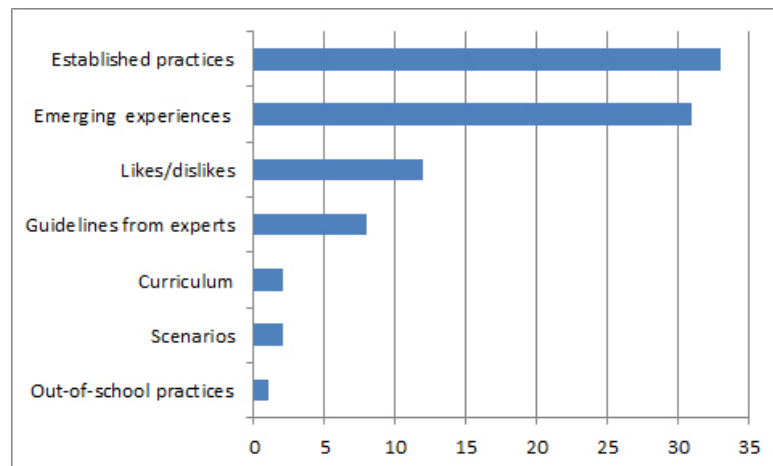


Figure 1. Occurrence of various references in use

The teachers' attempt to link the new genre with established assessment rules seemed problematic for them. This strategy did not provide them with access to the varied perspectives needed to explore the premises of digital stories and to broaden their horizon of possible new criteria for assessing digital stories. That the teachers so often resorted to established practices was a manifestation of how much power the lines of thought embedded in established assessment rules exerts on the observed teachers' negotiation of criteria for assessing new genres.

Figure 1 shows that few references dominantly were used; however, from the transcripts, we observed that Tony, in particular, gave access to multiple voices (Ball & Freedman, 2004). Throughout the meeting, he searched for reasons and ways to develop contemporary criteria. As the "devil's advocate," he introduced diverse perspectives (Wertsch, 1991). He also "travelled" (Bakhtin, 1981; Burton, 2001) out of school to explore and understand something unfamiliar and used his imagination (Vygotsky, 1931) when he twice drew up future scenarios. Even if Tony's strategies during the observation did not trigger the group to explore practices that are "taken for granted," move beyond the limits of their existing competence, or expand their worldviews (Wertsch, 1991), he might have provoked his colleagues thinking, which would impact on their future discussions.

Regardless of conceptual vagueness and the efforts to re-use rules and expectations inscribed (Latour, 1992) in established practices, the teachers managed to invoke different approaches and conceptual understandings of reflective skills during the meeting. Vygotsky (1987) has described how scientific language departs from everyday language. The observed teachers were at the start of developing a shared professional language. Even if the process of developing this language appeared to be a struggle, it was nevertheless important for their further negotiation and development of criteria for assessing digital stories.

DISCUSSION

Challenges emerging from teachers' interplay with various inscriptions

The first question addressed in the article concerned the challenges faced by teachers in assessing digital stories. The analysis revealed some of the various ideas and intentions embedded in the digital story, on the one hand, and established assessment rules, on the other. Some of these inscribed ideas were seen to reveal underlying mechanisms that might explain why tensions arise. First, the excerpts showed that students' verbalized reflections on subject issues are valued by the assessing teachers. However, reflecting upon subject issues is not the key element in digital storytelling – sharing multimodal first-person stories from their life-worlds is. Second, the mission of most established assessment practices is to judge the knowledge and skills of students based on the quality of their work. Within such a system, the space for student agency is restricted while the teacher as “judge” ultimately decides what counts as quality. In light of this, it made sense that the observed teachers thought that their students should adapt their messages to their teacher audience. This very much differs from the “rules” outlined by the Center for Digital Storytelling whose mission is to “promote the value of story as a means for compassionate community action” (n.d.). They expect the watcher of a digital story to “listen deeply” and thus understand the life story of the producer. Third, established assessment rules are designed to assess traditional verbal school genres while a key characteristic of the digital story is multimodality. Fourth, while creative and artistic reflective skills are not traditionally assessed in the school subject of Norwegian, a digital story should encourage people to engage in artistic self-expression. The multimodal and creative style of the genre makes assessing it a complex task, and the data suggest that negotiating criteria for assessing the genre calls for teachers with multidisciplinary skills to consider how the combination of multiple modes strengthens or weakens the message of the student's story.

Contrasting the ideas in the established assessment rules with those inscribed in the digital story shows some of the mechanisms that make it difficult for a genre to travel into school without the risk of being reshaped by existing historical and institutional conventions. The concept of inscription has raised the level of analytical abstraction (Richardson & Kramer, 2006) and shown how “voices” from the past impact present practices when teachers so extensively consult established, historical rooted practices to figure out how to respond to the present emerging and still unfamiliar genres.

Developing assessment practices

How teachers negotiate the criteria for assessing digital stories was the second question addressed in this text. Building on the assumption that developing institutional practices is enhanced by exploring the developmental potential of tensions (Engeström, 1987) and working on the edges of competence (Hak-

karainen et al., 2004), the tendency of the observed teachers to consult established practices was worth questioning. How can new genres unfold and become sustainable in schools if the teachers in charge of assessing them choose their criteria from established practices without critically discussing the effects of transferring them? Instead of freeing teachers from the privileged patterns (Wertsch, 1991) of established assessment practices, the strategy risks preventing teachers from exploring the potential gaps between emerging and established practices. Based on the analysis in this paper, it would seem that the potential of digital stories, for example, to function as a “bridge” between youth and school culture, very much depends on the ideas and intention that teachers, through the negotiation of criteria, inscribe in the educational version of a digital story. If teachers request similar or even identical quality indicators from a traditional text and a digital story, they run the risk of reducing the educational version of the digital story to an illustrated but otherwise traditional school text.

The analysis has shown teachers who grapple with assessing, in particular, the intertextual, visual, and auditory qualities of digital stories. According to the OECD (Nusche et al., 2011), national criteria should be provided to support teachers. However, the present study shows that criteria lists do not work as a quick fix to enhancing intersubjectivity (Matusov, 2001). Even if the first part of the meeting was spent going through criteria lists, the contents of the criteria were rarely critically discussed, and the criteria were hardly mentioned in the discussion of the sample texts. Consequently, such criteria lists were suggestive of cultural tools whose usefulness was taken for granted (Gee, 2011); in practice, their usefulness was restricted.

The risk of responding expansively

The motive of expansive learning is to enrich or significantly transform institutional practices (Engeström, 1987; Hakkarainen et al., 2004). This involves time-consuming processes, such as questioning practices and exploring new ways of doing things. For teachers who must respond instantly to the challenges that emerge in the classroom, expansive responses that generate periods of insecurity and the absence of clear guidelines might seem risky. The pressure teachers are under to act and respond instantly to rapidly changing classroom situations encourages order. In light of this, a desire for well-proven, quick-fix solutions (Wilson & Berne, 1999) and attempts to re-use the guiding ideas and conventions embedded in established practices seem reasonable.

To engage in the expansive development of practices, teachers need both good institutional frames and support. The time and location of the observed meeting were indicative of a lack of sufficient institutional frames and can be read as a comment on prior studies, noting teachers’ tendency to develop practices independently (Hargreaves, 2010). However, the context also demonstrated a strong desire among teachers to collaborate on professional development.

CONCLUSION

The present study was designed to enhance knowledge about upper secondary school teachers' professional development in dealing with challenges when something new—digital stories—and how to assess it come face to face with tradition in the form of inscriptions in an established practice. The first research question guiding this study looked at the challenges faced by teachers assessing students' digital stories. In assessing the digital stories, the teachers in the current study had difficulty observing students' reflective skills. In the discussion on "reflection," the teachers referred to manifestations of a variety of reflective skills. Hence, they seemed to lack a shared conceptual understanding of the phenomenon. In addition to conceptual vagueness, the very different ideas and intentions embedded in the inscriptions caused tensions and made it difficult for the observed teachers to find the "right premises" for negotiating new criteria for assessing digital stories. This study contributes to knowledge about the process of including a new technology-mediated genre in the school curriculum as well as to some of the underlying challenges that emerge when teachers try to relate two inscriptions developed in different contexts, for different purposes, and infused with different intentions and ideas.

The second question concerned how teachers negotiate the criteria for assessing digital stories. Individuals, particularly Tony, enriched the discussion with ideas, reflections, and critical questions. However, the general impression was that the observed teachers hardly used expansive strategies (Bakhtin, 1981; Vygotsky, 1931; Wertsch, 1991). Rather, they tended to employ established assessment practices and rules to guide their evaluations of digital stories. Hence, established assessment rules have a powerful impact on these teachers' negotiation of criteria for assessing digital stories. Consequently, the study confirms that even though contradictions are seen as springboards for change (Engeström, 1987), need states do not necessarily trigger expansive development and new practices. Need states triggered by challenges in assessing digital stories seem, at least in this case, to be "resolved" through regression rather through expansion (Engeström, 1987). The teachers' insufficient institutional frames and support for developing innovative assessment practices and their lack of expertise in how to develop expansive practices might explain this.

Sociocultural learning theories are criticized for positing "an asymmetrical relationship between persons and artifacts"² in which people are doing the acting (Shaffer & Clinton, 2006, p. 288). Inspired by Shaffer and Clinton (2006), this study acknowledges that humans interact both with and through inscribed non-humans (Latour, 1992) and demonstrates the importance of not ignoring how inscriptions in use might impact on teachers' development

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2. Even if I realize the social impact of non-humans, my position is that the agency of humans makes it impossible to totally align non-humans and humans, i.e., there is an ontological difference between them.

of new practices. Moreover, future studies should take the presence and use of inscriptions into account if their intention is to understand the development of educational practices in our digital age.

ACKNOWLEDGEMENTS

Working with this article has been a pleasure, much due to the supportive and thought-provoking discussions with my supervisor, Andreas Lund. I would also like to thank the peer-reviewers for providing me with such useful feedback through their insights and suggestions.

REFERENCES

- Aagaard, T., & Lund, A. (2013). Mind the gap: Divergent objects of assessment in technology-rich learning environments. *Nordic Journal of Digital Literacy*, 8(4), 225–243.
- Aagaard, T. (2014). Når teknologi møter fagtradisjoner i norsk og mediefag. Manuscript in preparation.
- Alvesson, M., & Sköldbberg, K. (2009). *Reflexive methodology: New vistas for qualitative research*. London: Sage Publications Ltd.
- Atkinson, P., & Hammersley, M. (1994). Ethnography and participant observation. In N. K. Denzin and Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 248–261). Thousand Oaks: Sage Publications.
- Bakhtin, M. (1981). *The dialogic imagination: Four essays by M.M.Bakhtin*. In M. Holquist (Ed.). Austin: University of Texas.
- Ball, A., & Freedman, S. W. (2004). Ideological Becoming. Bakhtinian Concepts to Guide the Study of Language, Literacy, and Learning. In A. Ball & S. W. Freedman (Eds.), *Bakhtinian Perspectives on Language, Literacy, and Learning*. Cambridge: Cambridge University Press.
- Berge, K. L., Evensen, L. S., Hertzberg, F., & Vagle, W. (Eds.) (2005). *Ungdommers skrivekompetanse (1): norsksensuren som kvalitetsvurdering*. Oslo: Universitetsforlaget.
- Burton, S. (2001). Bakhtin and the practice of travel literature. In P. I. Barta, P. A. Miller, C. Platter & D. Shepherd (Eds.), *Carnivalizing difference*. London: Routledge.
- Center for Digital Storytelling. (n.d.). *What we believe*. Retrieved from <http://storycenter.org/about-us/>
- Clarke, R., & Adam, A. (2012). Digital storytelling in Australia: Academic perspectives and reflections. *Arts and Humanities in Higher Education: An International Journal of Theory, Research and Practice*, 11(1), 157–176.
- Court, D. (2004). The quest for meaning in educational research. *Academic Exchange Quarterly*, 8(3). Retrieved from <http://www.rapidintellect.com/AEQweb/cho27244j.htm>
- Education and Training Policy Division of the Directorate for Education. (2009). Evaluation and assessment frameworks for improving school outcomes: OECD. Retrieved from <http://www.oecd.org/education/school/46927511.pdf>
- Engeström, Y. (1987). Learning by expanding: An activity-theoretical approach to development research. Helsinki: Orienta Konsultit Oy.
- Engeström, Y., Puonti, A. & Seppänen, L. (2003). Spatial and temporal expansion of the object as a challenge for reorganizing work. In D. Nicolini, S. Gherardi & D. Yanow (Eds.), *Knowing in organizations: A practice-based approach*. Armonk: Sharpe.

- Gee, J. P. (2011). Discourse analysis: What makes it critical? In R. Rogers (Ed.), *An introduction to critical discourse analysis in education* (Vol. 2013, pp. 23–45). New York: Routledge.
- Geertz, C. (1973). Thick description: Toward an interpretive theory of culture. In *The interpretation of cultures: Selected essays* (pp. 3–30). New York: Basic Books.
- Gibson, J. J. (1977). The theory of affordances. In R. Shaw & J. Bransford (Eds.), *Perceiving, acting and knowing: Toward an ecological psychology* (pp. 62–87). Hillsdale, NJ: Erlbaum.
- Hakkarainen, K., Palonen, T., Paavola, S., & Lethinen, E. (2004). *Communities of networked expertise: Professional and educational perspectives*. Elsevier: Oxford, England.
- Hargreaves, A. (2010). Presentism, individualism, and conservatism: The legacy of Dan Lortie's schoolteacher: A sociological study. *Curriculum Inquiry*, 40(1), 143–154.
- Haug, K. H, Jamissen, G., & Ohlmann, C. (2012). Digital historiefortelling – en introduksjon. In K. H. Haug, G. Jamissen & C. Ohlmann (Eds.), *Digitalt fortalte historier. Refleksjon for læring*. Oslo: Cappelen Damm Akademisk.
- Hull, G., & Katz, M.-L. (2006). Crafting an agentive self. *Research in the Teaching of English*, 41(1), 43–81.
- Hutcheson, B. (2008). 2008–2009 Davis digital storytelling challenge: Showcasing 21st-century learning in the art classroom. *SchoolArts: The Art Education Magazine for Teachers*, 108(1), 40–41.
- Jordan, B., & Henderson K. (1995). Interaction analysis: Foundations and practice. *The Journal of the Learning Sciences*, 4(1), 39–103.
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. New York: Routledge.
- Kress, G., & van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication*. London: Arnold.
- Kvale, S. (1996). *InterViews*. Thousand Oaks, CA: SAGE.
- Lambert, J. (2012). Preface by Joe Lambert. In K. H. Haug, G. Jamissen, & C. Ohlmann (Eds.), *Digitalt fortalte historier*. Oslo: Cappelen Damm.
- Latour, B. (1992). Where are the missing masses? The sociology of a few mundane artifacts. In W. E. Bijker & J. Law (Eds.), *Shaping technology/building society: Studies in sociotechnical change* (pp. 225–258). Cambridge, Massachusetts: MIT Press.
- Lemke, J. L. (2000). Across the scales of time: Artifacts, activities, and meanings in ecosocial systems. *Mind, Culture and Activity*, 7(4), 273–290.
- Matusov, E. (2001). Intersubjectivity as a way of informing teaching design for a community of learners classroom. *Teaching and Teacher Education*, 17, 383–402.
- McKnight, A., Hoban, G., & Nielsen, W. (2011). Using “slowmation” for animated storytelling to represent non-aboriginal preservice teachers’ awareness of “relatedness to country.” *Australasian Journal of Educational Technology*, 27(1), 41–54.
- Mediesenteret (n.d.). Digitale Fortelling. Retrieved from <https://sites.google.com/site/multimediejournalistikk/fagst/teori/dokumentarfilm/digitale-fortelling>.
- Ministry of Education and Research (2006). *The national curriculum for knowledge promotion*. Retrieved from http://www.udir.no/Stottemeny/English/Curriculum-in-English/_english/Knowledge-promotion---Kunnskapsloftet/.
- Nixon, A. S. (2009). Mediating social thought through digital storytelling. *Pedagogies: An International Journal*, 4(1), 63–76.
- Nusche, D., Earl, L., Maxwell, W., & Shewbridge, C. (2011). *OECD's reviews on evaluation and assessment in education – Norway*. Retrieved from <http://www.oecd.org/norway/48632032.pdf>
- Oliver, P. (Ed.). (2006). *Purposive sampling*. Thousand Oaks: Sage.
- Prøitz, T. S., & Borgen, J. S. (2010). Rettferdig standpunktvrdering – det (u)muliges kunst? Oslo: NIFU STEP.

- Richardson, R., & Kramer, E. H. (2006). Abduction as the type of inference that characterizes the development of a grounded theory. *Qualitative Research*, 6(4), 497–513.
- Roth, W.-M., & Lawless, D. (2002). Science, culture, and the emergence of language. *Science Education*, 86, 368–385. doi: 10.1002/sce.10008
- Sfard, A. (2001). *Learning mathematics as developing a discourse*. Paper presented at the 21st Conference of PME-NA, Columbus, Ohio.
- Shaffer, D. W., & Clinton, K. A. (2006). Toolforthoughts: Reexamining thinking in the digital age. *Mind, Culture and Activity*, 13(4), 283–300.
- Silseth, K. (2013). Surviving the impossible: Studying students' constructions of digital stories on World War II. *Learning, Culture and Social Interaction*, 2(3), 155–170.
- Silverman, D. (2006). *Interpreting qualitative data*. London: Sage publications Ltd.
- Vygotsky, L. S. (1931). Imagination and creativity of the adolescent. In R. Van der Veer & J. Valsiner (Eds.), *Pedologija podrostka [Paedology of the Adolescent]*. Moscow, Leningrad: Uchebno-Pedagogicheskoe Izdatel'stvo.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- Wertsch, J. (1991). *Voices of the mind: A sociocultural approach to mediated action*. Cambridge, Massachusetts: Harvard university Press.
- Wilson, S., & Berne, J. (1999). Teacher learning and the acquisition of professional knowledge: An examination of research on contemporary professional development. In A. Iran-Nejad & P. David Pearson (Eds.), *Review of research in education* (Vol. 24, pp. 173–209). Washington, DC: American Educational Research Association.