"… but, it's really grown on me, Storyline, as practical as it has been": A critical inquiry of student teachers' experiences of The Scottish Storyline Approach in teacher education

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HIGHLIGHTS

- The demands on teachers of the 21st century require alternative approaches to teaching and learning.
- Storyline provides one alternative approach to teaching and learning for student teachers in their education.
- 71% student teachers described their experience with The Storyline Approach as good or excellent.
- 86% student teachers experience The Storyline Approach as relevant for their future profession.
- Experiencing The Storyline Approach influences student teachers' attitude towards implementing Storyline in the future.

ARTICLE INFO

ABSTRACT

Through qualitative interviews and self-administrated online surveys, this study critically examines how 104 first-year student teachers experience The Scottish Storyline Approach, a cross-curricular approach to teaching and learning. Framed by Dewey's (2005) concept of experience, The Storyline Approach is discussed as a possible didactic tool for making teaching and learning meaningful. Although not all students experience Storyline as positive, this study finds that the majority of the students report Storyline as relevant for their future profession.

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1. Introduction

The way we live, work, and learn is rapidly changing due to globalization, internationalization of economy, and new technological advancements (Goren & Yemini, 2017; Voogt & Roblin, 2012). These changes impact teachers, learners, and schools at all levels (Kereluik, Mishra, Fahnoe, & Terry, 2013; Kivunja, 2014; Steingrimsdottir, 2016). Teachers and schools are no longer the gatekeepers of knowledge to be transmitted to learners, and learning is seen as a dynamic process in which the learners and teachers collaborate to co-construct knowledge to make sense of the world around them (Chai, Tan, Deng, & Koh, 2017; Wrigley, Thomson, & Lingard, 2011). International policies are also changing to highlight cross-curricular collaboration and to identify the 21st century skills needed in this rapidly changing society. Skills such as critical thinking and problem solving, creativity and innovation, communication, and collaboration are found in policy documents around the world (see, for example, "Competence frameworks," 2016; "Framework for 21st Century Learning - P21," 2009; "Education for Sustainable Development," 2013). In order to make these policy documents operational, *specific* approaches to

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teaching and learning that explore more open architectures of curriculum organization must be addressed (Wrigley et al., 2011, p. 199). Opportunities to address specific approaches to teaching and learning can be found in on-going school-based initiatives, in-service courses, and initial teacher education. These opportunities can facilitate for future teachers to become the agents of change needed in our rapidly changing society (Priestley, Biesta, & Robinson, 2015, pp. 137–138).

The new plan for the Norwegian five-year master-level teacher education (Framework Plan, 2016a, 2016b), along with two national strategies for quality and cooperation in teacher education (Ministry of Education, 2014, 2017), also reflect the international view of teachers in the 21st century. The new plan and national strategies call for teachers to obtain new skills and competencies that facilitate cross-curricular collaboration together with critical thinking, problem solving, creativity and innovation, and engaging learners in real-world problems. Nevertheless, educating teachers for these professional skills and competencies can be a challenge due to current practices found in Norwegian higher education, where traditional teaching methods predominate, leaving student teachers with few opportunities to participate in alternative learning activities on campus (Dysthe, Raaheim, Lima, & Bygstad, 2006; Regmi, 2012). Bamford's (2012) report identifies these challenges in Norwegian higher education and reveals that many student teachers graduate without essential knowledge needed to implement the new innovative approaches to teaching and learning (p. 12).

Various methods can be used to give student teachers opportunities to develop competencies that integrate teaching and learning across the curriculum and engage learners in real-world problems; pedagogical entrepreneurship (Adeyemo, 2009; Skogen & Sjøvoll, 2009), process drama (Allern, 2003; O'Neill, 1995; O'Toole, 1992), and the Storyline Approach (Bell, 1994; Bell & Harkness, 2013). This article focuses on first-year student teachers' experience with The Storyline Approach, further referred to as TSA, as a possible tool for approaching teaching and learning 21st century skills. The method was developed in the late 1960s in Scotland as a response to a new Scottish curriculum requiring teachers to teach interdisciplinary studies (Bell & Harkness, 2013; Eik, 2000). TSA has grown internationally through teacher networks and workshops and is used with learners of all ages, from kindergarten to the ollege level (Bell & Harkness, 2013; Mitchell & McNaughton, 2016). Stories have been used through the ages to help humans structure and comprehend the complexities of life (Ohler, 2013, p. 9), and TSA uses the fundamental human activity of storytelling to help frame cross-curricular learning in the classroom (Mitchell & McNaughton, 2016, p. ix). This study critically examines how Norwegian first-year student teachers experience TSA in terms of their future profession by using TSA to make a meaningful learning experience, an area in need of more research according to Kostiainen et al. (2018, p. 75).

Traditionally, TSA has developed through teacher networks with the aim of practical improvement and innovation, rather than empirical research (Emo, 2010, p. 97; Mitchell-Barrett, 2010, p. 13). In recent years, however, the number of studies on TSA that focus on pupils in primary and secondary schools is growing both internationally (e.g., Ahlquist, 2015; McGuire, Walker, & Grant, 2016; Mitchell-Barrett, 2010; Nuttall, 2016; Stanton & Tench, 2003) and in Norway (e.g., Fauskanger, 2002; Sætre, 2003; Østern, 2014; Østern & Kalanje, 2012). Fewer studies focus on TSA in teacher education, and of these studies, the majority focus on the opportunity TSA provides for connecting practical experience with theory. The contexts for these studies include pre-service teacher education (Lund, Tang Jørgensen, Pagh Fisker, & Jensen, 2016; Murray, 2016; Solstad, 2006), continuing education (Emo & Emo, 2016), and early

childhood education (Danielsen, 2005). Even though the contexts are varied, all of these studies indicate that TSA provides for bridging the gap between theory and practice. TSA provides an additional 'space' where student teachers can reflect on real-life practical situations to support their professional growth (Murray, 2016).

A few studies combine TSA with research on other aspects of student teacher learning, aspects that include the 21st century skills such as adapting to change, innovating, cooperating, and using technology. For example, using life-history interviews, Emo (2010) examines teachers and their motivation for innovation to initiate curriculum change. Stevahn and McGuire (2017) use an alternative TSA, referred to as Storypath, as a framework to develop cooperative learning skills in pre-service teachers. In Norway, Leming (2016) focuses on co-constructing learning through role-play and finds that TSA contributes to the learning processes for acquiring subject knowledge and developing professional identity. Highlighting the use of technology, Rimmereide, Blair, and Hoem (2011) carry out a Storyline in a digital format using a wiki-site. They report on learning digital skills along with subject content in their on-line virtual Storyline. Although these studies focus on different aspects of teacher education and skills for the 21st century, they all show how TSA can positively contribute to developing teacher education and future teachers.

As shown in the literature above, TSA has been explored in teacher education as an approach to bridge the gap between theory and practice and as an opportunity to develop 21st century skills. This literature is the backdrop to the current study which critically examines how first-year student teachers experience TSA in their professional education and how they respond toward using TSA as future teachers, adding a new, in-depth student voice to the studies of TSA and teacher education. In the following sections, the context in which our Storyline project is implemented will be described, followed by the theoretical framework for our study.

1.1. The context of the study: the Meta-Storyline, teachers-in-team

The context of this study is a Storyline implemented in teacher education in Norway. Our Storyline project took place at the end of the term during the students' first semester of a four-year teacher education program. The Storyline lasted for four days (5–6 h each day). The students represented two different teaching programs, GLU1–7, consisting of students preparing to teach grades 1–7, and GLU5–10, consisting of students preparing to teach grades 5–10. There was a total of 104 students. TSA was a part of the required curriculum in the students' education course, so the students were aware that TSA was a possible topic for their oral exams. All subject teachers at the college (a total of 28) involved in the first-year GLU1–7 and GLU5–10 teacher education programs were invited to collaborate. Of the teachers from the four subjects taught during the first year—Norwegian, math, English, and education—only five (of six) teachers in the education course participated. In addition, two educators from art and drama were also part of the Storyline, making the total number of teacher educators involved in the Storyline project seven. The teacher educators involved in the Storyline project reported varying degrees of previous experience with TSA in higher education and public schools. Therefore, in order to strengthen the implementation of the Storyline, a Storyline expert with 20 years of experience with TSA in public schools was invited to support the project.

Eik (2000) describes a diversity of Storylines, for example, historical, literary, and here-and-now. These different types of Storylines offer different opportunities to approach curriculum goals (Bell & Harkness, 2013, p. 7). An historical Storyline, for example, may have as its goal exploring the living conditions during an

historical event, such as the fall of the Berlin Wall. The kind of Storyline used in this study is a *here-and-now*, a Storyline that takes place in the present, often in realistic-like situations found in everyday life. We refer to our here-and-now Storyline as a Meta-Storyline, because it was used to learn about TSA as an alternative approach to teaching and learning across the curriculum. As stated by Bell and Harkness (2013), successful Storyline topics include some immediate relevancy for the learners (p. 8). We address this relevancy for the learner in our Storyline, as the topic of the Meta-Storyline is TSA and the students teachers are to create a Storyline within the story, addressing several curriculum goals in the student teachers' education course. These goals included exploring their professional roles as teachers, along with gaining skills and competencies to plan and facilitate alternative approaches to teaching and learning. In our Meta-Storyline, we aimed to allow for experiencing a Storyline, while learning to plan a Storyline in collaboration with other teachers. Part of the final event included the creation of a booklet with all the teacher-in-teams' Storylines they had developed as a part of the Meta-Storyline.

As in any narrative, a Storyline includes a setting, fictional characters, and a set of events that lead to a culminating event (Bell & Harkness, 2013, p. 9). A typical Storyline starts by creating a setting and characters for the story, where the students actively construct these items together and in cooperation with the teacher. In our Storyline, titled *Teachers-in-Team*, the students created fictional teachers in a team consisting of four to six teachers. They assigned their teacher characters the subjects they taught and described the attitudes each teacher had toward teaching and learning, thus allowing students to reflect on types of teachers and the role of teachers in learning. These teachers-in-teams worked at fictional schools they also developed, which then became the setting for the Meta-Storyline.

In a Storyline, teachers influence the narrative by introducing new events in various ways, for example, through a film, a letter, or an unexpected visitor (see Table 1, Events). These events often include elements of surprise along with key questions (see Table 1, Key questions) that aim to raise the students' curiosity and motivate them to reflect and act upon the new turn of events (Bell & Harkness, 2013; Eik, 2000). In the *Teachers-in-Team* Storyline, the events were presented using what Sæbø (1998) refers to as teachers-in-role; here, the teacher educators acted as the principals of the various fictional schools. Although the events and key questions drive the narrative forward, the outcome of the Storyline is dependent on the students' own experience, imagination, and ability to cooperate, all of which determine the strategies they choose to explore solutions for addressing the turn of events. To address new events and key questions, students engage in problem-solving activities both *in* the Storyline as the fictive characters and *outside* of the Storyline as students learning skills needed to solve challenges (see Table 1, Activity). These outside-of-the-storyline activities provide teachers with the opportunity to teach content and skills necessary for solving problems, thus allowing for control over the subject matter to be presented. The students in this study were provided with content information about TSA through a flipped classroom and mini lectures (see Table 1, Content), thus addressing the aim of learning about TSA as a cross-curricular approach to teaching and learning. According to Bell and Harkness (2013), although content knowledge and skills may be presented to students *outside* of the Storyline, the students are responsible for applying these new skills and content to the narrative *inside* the Storyline. In this manner, the students have an active role in their learning, as well as in the outcome of the narrative. Various ways of applying new knowledge inside the narrative were used in this study. For instance, the students used puppets to introduce the teachers-in-teams and role-played group discussions on creating a Storyline for the school, all of which was done in front of other teachers-in-teams.

1.2. Theoretical framework: experience and restrained teaching

In order to investigate our student teachers' experience with TSA, we use Dewey's (2005) distinction between experience and *an* experience. He defines experiences across what he calls an experiential continuum (Dewey, 2015, p. 33), where the most valuable experiences are cumulatively based on previous experiences in order to become educational, creating the basis for richer experiences in the future (p. 26). He further claims that an experience is not *an* experience until it has reached its conclusion, or fulfillment (Dewey, 2005, p. 36). Dewey (2005) uses the term experience with an aesthetic quality to describe the fulfillment of an experience, and goes on to state that such experiences are aesthetic, not due to their artistic "materials", but rather due to "a satisfying emotional quality because it possesses internal integration and fulfillment reached through ordered and organized movements" (p. 39–40). According to Dewey (2005), the quality of the experience can be described by the amount of reflection and emotions involved, which is crucial to recognizing the experience as an aesthetic experience (p. 39). When emotional fulfillment is of such a degree, one becomes competent and desires to make new experiences. In this manner, an aesthetic experience can be generated if the experience is so strong that it is perceived as meaningful and genuine. For one to seek new experiences, Nakamura and Csikszentmihalyi (2014) recognize the need for a balance between one's skills and the challenges one meets, a balance that is necessary to fully utilize one's learning potential and create a learning process that is motivated internally (p. 92). Flow, according to Csikszentmihalyi (1990), occurs when one's skills are neither overmatched nor underutilized to meet a given challenge, which then results in focusing on what is relevant to the situation, being less sensitive to external influences that can take one *out of* the situation. As the feeling of flow is intrinsically rewarding, individuals seek to replicate flow experiences (Nakamura & Csikszentmihalyi, 2014, p. 92).

Openness to the experience must also be in place for an aesthetic experience to be possible (Dewey, 2005). Sæbø (1998) uses the term *aesthetic attitude* to express the participants' openness, focus, and dedication to achieve strong aesthetic experiences. Austring and Sørensen (2006) borrow the term *being-in-tune* from Mogens Paahus (1995), while Bönisch (2011, pp. 66–90) refers to this openness as *henvendthet*, translated into *aesthetically focused* (our translation). Sæbø (1998) continues by saying that being open to the value of the experience requires engaging in the actions that are necessary for the realization of the aesthetic experience (p. 412). Dewey (2005) claims that being active is an essential prerequisite for the aesthetic experience. The aesthetic experience has active and passive aspects, a doing, which is the active, and an undergoing, which is the passive (Dewey, 1997, p. 183; 2005, p. 46). He makes use of the artists' organic connection between the artistic action of making and the perception of the art when describing the process of having any aesthetic experience. Dewey states: "In short, art, in its form unites the very same relation of doing and undergoing, outgoing and incoming energy, that makes an experience to be *an* experience" (Dewey, 2005, p. 50). Through activity, the participants initiate a change in their surroundings, while at the same time, they are changed themselves as a result of the activity by perceiving the change (Dewey, 1997, p. 183). However, the participants need to reflect and reconstruct the experience in order to achieve a full experience and make the activity meaningful (Dewey, 2005, p. 49). According to Dewey (2015), education can be identified as development or growth, and understood as a principle of continuity (p. 36–37), where the continuous stream of experiences

Table 1
Summary of the key features of the meta-storyline, teachers-in-team.

Day	Events	Key questions	Activity		Content or skills
			Out-of-Role Activity	In-Role Activity	
1	**Event 1:** Create a motivation for Storyline	Why do we need a variety of teaching methods?		**Activity 1:** Teacher-in-role as college instructors present a role-play about wanting more variation in teaching methods.	Variation in teaching methods
	Event 2: Introduce TSA	What is TSA? Why have a Storyline in the education program?	**Activity 2:** Students attend a mandatory lecture on TSA and cooperative learning.		Elements of a Storyline and cooperative learning.
	Event 3: Create teacher teams	Who makes up your teacher team? What subjects do you present?	**Activity 2:** Students develop teacher teams and create a visual 'flower' that represents the teachers and the subjects represented in their team.		
2	**Event 1:** Create characters for teacher teams	What does your character look like? How old are you?	**Activity 1:** The students create their own puppets depicting their teacher.		Skills for sewing, gluing, and welding. Introduction to shop tools and materials
		What age level and subject do you teach? What is your teaching philosophy? What is your school like?	**Activity 2:** Students write role cards with information about their teacher character, including a quote from their character.		Educational philosophy and practical implications at school.
				Activity 3: Students present themselves using their puppets.	Roleplaying - presentation techniques
	Event 2: Principals present requirement that each team is to make a Storyline	Why do we need creativity in school?		**Activity 1:** College instructors acting as principals through teacher-in-role explain the need for creativity in school and require each team to make a Storyline that the teams will present to the whole school.	
		How do you think your team meeting will go? How do the teachers in your team react to this new mandate from the principal?		**Activity 2:** Role-play the dialogue of the team meeting in reaction to the requirement.	Roleplaying - presentation techniques
	Event 3: Write a team log	What happened today? How did your group react to the activities?	**Activity 3:** Students write reflections on the events of the day in the team journal.		
3	**Event 1:** Create a Storyline	What are the different types of Storyline? What should you consider when making a Storyline? What kind of Storyline will your team choose? Topic? Setting? Characters? What are your key events and key questions?	**Activity 1:** Students watch a screencast at home and/or attend a lecture on the different types of Storylines and how to plan a storyline.	**Activity 2:** Teacher teams create a Storyline for their fictional pupils.	Elements of the different types of Storylines and tools for planning a storyline
	Event 2: Receive information about aesthetic learning processes	What is an aesthetic learning process? How can the teacher-in-role create a learning environment?	**Activity 3:** College instructors visit team-planning time and give a mini-lecture introducing the theory of aesthetic learning processes and teacher-in-role drama theory.		Elements of aesthetic learning processes and teacher-in-role drama theory
	Event 3: Present Storyline			**Activity 4:** Students present their Storyline to other teacher teams.	
	Event 4: Write team log	What happened today? How did your team cooperate? What went well and what was difficult? Why?	**Activity 5:** Students write a final reflection entry on the events of the day in the team journal.		
4	**Event 1:** Present Storyline project at the college	How can we best promote our Storyline project?	**Activity 1:** Organize the college entry for display. Set up tables, make posters, and make displays to present puppets, journals, and team flowers. **Activity 2:** The students present a promotion film alongside the display.		

through their actions and reflections "opens up to a new environment" (p. 37).

The experience that student teachers gain in their teacher education can be transformed into professional competencies, such as the competency to facilitate activities that may result in an aesthetic experience, in which cross-curricular, cooperative, and active learning are essential components. We understand teachers'

didactic competency as what Midtsundstad and Willbergh (2010) refer to as the ability to create context by choosing content that pupils may find significant and meaningful, which is reflected when the pupils recognize the content and decide to make it their own. This didactic competency is referred to as restrained teaching (p. 11). However, teachers must choose the content on the basis of professional guesswork, because they can never know for sure

what the pupils will perceive as relevant (Midtsundstad & Willbergh, 2010, p. 50). Didactic competency using this perspective does not mean that pupils master particular content as a result of the teaching, but whether or not its educational significance opens the individuals' meeting with the content (Hopmann, 2010, p. 29). Therefore, good teaching appreciates and allows for a degree of uncertainty (p. 33).

2. Methodology

The sample included 104 first-year student teachers studying at a mid-sized university college to become primary-school teachers in grades 1—7, referred to as GLU1—7 (n = 33), and grades 5—10, referred to as GLU5—10 (n = 71). At this university college, the teacher education is the largest faculty. Six qualitative face-to-face focus group interviews were conducted, along with two online surveys. All study phases complied with the ethical guidelines for qualitative research (Miles & Huberman, 1994; Silverman, 2014; Etikkom - The Norwegian National Research Ethics committees). Confidentiality was ensured, and data access adhered to current privacy regulations (see Etikkom - The Norwegian National Research Ethics committees). The students were freely given informed consent to join the study (Bryman, 2016, p. 129), ensuring that the participation in the study was voluntary (Silverman, 2014, p. 148). The students were orally given detailed information regarding the nature and aims of our research and their right to withdraw at any time (Silverman, 2014, p. 149). Both online surveys included a separate question asking for the participants' approval to use their answers for our research. Three students did not approve the use of their responses, and thus were removed from the study.

The six focus group interviews, which included 16 students, were conducted immediately after completing the Storyline. The interviews followed a guide with eight questions, for example: How would you describe your own participation in the Storyline?; How would you describe your experience with this Storyline?; and Will you use TSA as a learning approach in the future, why or why not? The questions were designed to serve dual goals: to contribute thematic knowledge relevant to the study's purpose and to create a dynamic interview situation, motivating the interviewees to share their learning experiences with TSA (cf. Kvale & Brinkmann, 2015, p. 163). Prior to the interviews, the students received oral information about the purpose and content of the interview. A professional transcriber we have used in previous research was given clear procedural instructions to transcribe the interviews as close to verbatim as possible. Transcribing a focus interview is associated with several technical and interpretative challenges, as the transcriber needs to take into account who is talking as well as what is being said in the interview (Bryman, 2016, p. 503). Hence, it can be difficult for a third person to transcribe an interview (p. 35). To address this transcriber reliability, the written transcripts of the professional transcriber were compared to the sound recordings. The researchers found that the transcriptions were adequate for the research purpose in terms of communicating the meaning of the students' experiences, which Brinkmann and Kvale (2015) describe as constructive evaluation of transcriptions, "… as there is no true, objective, transformation from the oral to the written mode" (p. 213). Because reliability is considered low between different transcribers who transcribe the same passage (Brinkman & Tanggaard, 2010, p. 35), the parts of the material used as quotes in this study were transcribed by the researchers themselves.

The two self-administered online web questionnaires were conducted immediately before and after the Storyline using the program SurveyXact. Low response rates are a common limitation of self-administered questionnaires (Bryman, 2016, p. 224), so an additional email was sent to encourage responses from students

who had not completed the second questionnaire. A response rate greater than 60% is acceptable, while one that is higher than 70% is very good (Bryman, 2016). The respondents' replies were logged, and the entire dataset retrieved after data collection was completed. The response rate was 39% (41 of 104) for the first questionnaire, and 61% (63 of 104) for the second (Table 2). GLU5—10 students are underrepresented among the survey respondents, as GLU1—7 students have a response rate of 63% for the first survey and 67% for the second survey, while GLU5—10 students have response rates of 28% and 58%, respectively. This discrepancy has various possible causes. For example, GLU1—7 students reported that they were more positive about Storyline beforehand and were more likely to see its value and relevance to their own teaching profession in the survey afterwards. Regardless of the reason, the survey results are more representative for GLU1—7 students than GLU5—10 students.

Both questionnaires included demographic questions, open-ended questions, and closed-ended questions about attitudes and beliefs towards TSA (Bryman, 2016, pp. 250—251). Open-ended questions included questions relating to how the students experienced TSA in connection to developing their role as a teacher. In the closed-ended questions, the students chose an answer from a set of fixed alternatives that had to be both exhaustively and mutually exclusive (Postholm & Jacobsen, 2011). For example, in the first questionnaire, the closed-ended question, 'Have you ever participated in a Storyline in your education?' had two answer options—yes or no. To ensure that the research instrument functioned well, a 'pilot study' (Bryman, 2016) was conducted before the online questionnaire. *Data Analysis,* qualitative and quantitative analyses, were performed. Following Creswell (2013, pp. 182—188), the qualitative analysis used data from the interviews and the open-ended survey questions. To reduce the complexity of the data, a preliminary order of the content was created in a data-driven coding process. In the first step, the data were coded roughly to gain a general sense of the information received and to reflect on the overall meaning. Key sections were identified and coded (keywords) and then coded line by line using the most important categories from the first phase, including the topics the students discussed, how they spoke about them, and how they described behavior, opinions, and attitudes. Through the coding, the text was compressed, and units of meaning were identified and systematically labelled with Corbin and Strauss' (2015) set of code memos. Table 3 gives an example of the coding process. The first column contains extracts from raw data (interviews), column two units of meaning, and column three the actual code.

In the excerpt, a student reports that TSA was completely different from what he initially imagined and that his negative perceptions later became positive ones. This unit of meaning was interpreted to mean that through the process, TSA, for this student, went from being a negative experience to a positive and 'fun' one. The code then became 'process: negative to positive'. In another unit of meaning in this text excerpt, the student describes himself as 'fully engaged'. Such descriptions were encoded as 'flow', the

Table 2
Dropout by GLU1—7 and 5—10 students in absolute numbers (N) and percentages (%).

	Number of students		Answered surveys before		Answered surveys after	
	N	%	N	%	N	%
GLU1—7	33	32	21	63	22	67
GLU5—10	71	68	20	28	41	58
Total	104	100	41	39	63	61

Table 3
An example of coding of a focus group interview (a student from GLU1–7).

RAW DATA	UNITS OF MEANING	CODE
I was not just skeptical; I was negative when I came to Storyline. I thought it seemed like some real nonsense, and when I saw the teachers' role play at the beginning, I thought it was embarrassing. But, then when we were working with the dolls, it was fun, something completely different from what I had expected it to be. And in these last days when we've really gotten into it, it has been actually fun.	I was not just skeptical; I was negative when I came to Storyline […] But, then when we were working with the dolls, it was fun.	Process: negative to positive.
	And in these last days when we've really gotten into it, it has been actually fun.	A good experience. Being here-and-now (fun).

experience of being in the here-and-now, fully present. We then looked for patterns or connections between the identified codes to develop a thematic framework to explain the students' experiences of TSA.

The surveys were subjected to two types of analyses. First, each question was analyzed to describe the phenomenon through an univariate analysis (Bryman, 2016, p. 336). Then, a bivariate analysis investigated the correlations between two variables to understand how they related to the phenomenon (p. 339). Each question was a variable, and the response options were the qualities or values that varied with individual responses. The frequency function under the analysis tab in SurveyXact revealed the spread of the responses to the questions. The bivariate analysis set the values of two variables in relation to each other. Both GLU1–7 and GLU5–10 students who described their experience with TSA as good or excellent, for instance, were related to the variable 'yes' in response to the question, 'Would you use TSA in your own teaching in the future?'. The next section summarizes the variables showing different trends.

3. Analysis and discussion

In the following section, the findings related to the students' experience of TSA and its perceived transfer values are discussed as a possible tool for approaching teaching and learning 21st century skills.

3.1. The students' experience of the meta-storyline, Teachers-in-Team

While some students expressed positive attitudes towards TSA, others reported resisting the learning process and feeling frustrated over inefficient use of time. Overall, 71% of the students described their experience with TSA as good or excellent. By program, 86% of the GLU1–7 and 63% of the GLU5–10 students described their experience as good or excellent. Most students who reported less good or bad experiences were from the GLU5–10 program. Only one GLU1–7 student considered TSA a bad experience.

The participants who described TSA as a *good* experience included 19 (of the 22) GLU1–7 students and 26 (of the 41) GLU5–10 students. These students associated the experience with feeling something new or positively coping with a new experience. For example, one student from the GLU5–10 program, who initially doubted his ability to make a puppet, later expressed a sense of mastery when he discovered that, "… you get a little proud that you actually managed to sew the shirt all by yourself". In addition to the feeling of mastery, the student teachers who were positive toward the experience associated the experience with joy, excitement, and being engaged, making them *want* to discuss and dramatize their reactions to the key questions from the viewpoints of their characters. These students found the involvement in the fiction as most enjoyable. They enjoyed activities such as teachers-in-role (Table 1,

Days 1 and 3), making the puppets (Day 2), and their own role-playing (Days 2 and 3). Through participation, these students experienced first-hand how their actions influenced the narrative. Developing characters, role-playing, and being active in the Storyline appears to be the core of what makes TSA a positive experience for these students.

Of all the students who reported having a positive experience, two students from the GLU1–7 program and one student from the GLU5–10 program reported experiencing what we interpret as an emotionally fulfilled experience, or what Dewey (2005) defines as *an* experience. When an experience has an immediately felt emotional quality, its parts, according to Dewey (2005), become linked to the whole, and thus the experience may become aesthetic (p. 199). These students also described their experience as being entirely in the activities happening here-and-now, fully present, ignoring external influences. One GLU1–7 student described his feeling as "just enjoying using your hands, not needing to write anything or think about anything specific, just doing". A GLU5–10 student reported satisfaction from being emotionally present without having to "justify everything, like why you put on the red shirt or why the doll has curly hair. That's just how it is. That's just how my person is". We interpret that these students describe their experiences in terms of doing and undergoing, (cf. Dewey, 1997), allowing themselves to be mentally present in the process, and reflecting on their experiences afterwards, emotionally fulfilling the experiences. We further interpret their experiences as a feeling of flow according to Csikszentmihalyi (1990). There appears to be a balance between their abilities and the challenge of the task, which puts them in a state of complete absorption in the activity. These students seem to show an openness to the experience (cf. Austring & Sørensen, 2006; Bönisch, 2011, pp. 66–90; Dewey, 2005; Sæbø, 1998) and a recognition of making the content their own (cf. Midtsundstad & Willbergh, 2010). Other studies in the field have also presented a high percentage of positive student experience with TSA. For example, Leming (2016), who analyzed students' experiences using theories of transformational learning, found that the role-play activities created student engagement. She refers to the students' feeling that they learned in other and more enjoyable ways, and reported that they learned without being aware of learning (p. 67). Another study conducted by Stevahn and McGuire (2017) using the theory of cooperative learning (Johnson & Johnson, 1989), reported that Storypath provided the *most* engaging moments in the classroom for some students through Storypath's elements of playfulness, interactivity, and collaboration (Stevahn & McGuire, 2017, p. 325, author's emphasis).

However, 14% of GLU1–7 and 37% of GLU5–10 students viewed their experience of TSA as less good or negative, frequently referring to an absence of concentration and a resistance to the events and activities. These students experienced being in the fiction as unenjoyable, meaningless, and embarrassing and reported preferring traditional teaching methods such as the lecture given on TSA (Day 1), the screencast on how to plan a Storyline (Day 3), and the

mini lecture on the aesthetic learning process (Day 3). One GLU5–10 student stated: "This Storyline felt meaningless". Another GLU5–10 student said:

> … I still don't see the importance of puppets in Storyline. It seems to me that they become more like a distraction […] We never were in our roles. We were always ourselves as students, and that was possibly not quite what [the teacher educators] had in mind.

Based on their reported personal preferences of traditional teaching methods, these students describe a lack of openness to TSA, with one student even refusing to join the fictional in-role activities (Table 1). The openness needed for an aesthetic experience to take place is not present, as we interpret it, thus obstructing the experience from becoming fulfilled. These students surely did not have *an* aesthetic experience in terms of Dewey (2005). They may not have understood the Storyline *experience* as a goal in itself, as being in the Storyline, here-and-now, as something real and meaningful. Instead, their focus appears to be externally goal-oriented, participating only because of the exam requirements. According to Csikszentmihalyi (1990), this type of attitude can stand in the way of 100% enjoying an activity or of being in the flow. As these students show few signs of experiencing the tasks as intrinsically rewarding, referring to TSA as embarrassing and meaningless, we interpret that they do not experience flow through the activities they were exposed to in this project. This may be due to a lack of openness to tasks, and may also be a result of a misbalance between their skill levels and those skills needed for the tasks, causing boredom, anxiety, and/or worry (cf. Csikszentmihalyi, 1990). Negative experiences with TSA have also been found in other studies. In her comprehensive study, Solstad (2006), found that some students experienced TSA as a waste of time, preferring traditional lectures (p. 99). Emo (2010) claims that previous concepts of teaching may have hindered a willingness to open up to alternative ways of teaching that rely on narratives, such as TSA (p. 105). In addition to the influence of previous concepts of teaching, Leming (2016) claims that not all students have the ability to completely enter into a character's role (p. 69), causing a misbalance between the skills possessed by the student and the challenges presented with the tasks. In addition, Leming (2016) has also identified some students who reported that using TSA was ineffective for learning the subject content (p. 69).

3.2. TSA as a learning approach in schools

After completion of the Meta-Storyline, *Teachers-in-Team*, 86% of student teachers in our study reported that TSA can be a valuable teaching method in school. There is a relatively high level of correspondence between the two programs; 95% GLU1–7 students and 80% GLU5–10 students want to use the method in the future. As 71% of them experienced TSA as good or excellent, these results show that although some students reported their Storyline experience as less good or negative, the majority of them saw a high transfer value to their practice in school. These students report an understanding of TSA. For example, one GLU5–10 student reported understanding TSA as a cross-curricula approach in which learning "… can lead to a deeper understanding of the subjects that the students will remember much longer than with ordinary teaching". They seem to connect their own learning experience of TSA to the learning experience they want to give their future pupils. Another GLU5–10 student explained that "… Storyline was an approach that made me think on my own, something I also want my future pupils to do. I think that this ability is important for their learning". These students expressed wanting to expand, explore, and renew their

teaching methods in their future professional practice. For example, one GLU1–7 student argued that schools today are

> … characterized by a monotonous classroom and one-sided approach to tasks. Throughout the Storyline, you get real-life creative processes with others, and you depend on both giving and taking a little, and it was very, very cool to see.

Another GLU1–7 student said that

> … what we have learned, we have not been lectured, but we have understood it on the way. The fact that we actually know what a Storyline is and how it will be implemented, we have learned ourselves in the process.

The students reported various reasons why they believe TSA was a good way of teaching the pupils in school. They perceived TSA as promoting curiosity, imagination, and creativity. One GLU1–7 student said that TSA "gives pupils the opportunity to let [out] their inner child. Children, I believe, let their imagination go, make things, whether it's in the form of play, games, drawings". Finally, students from both programs reported that TSA can motivate many pupils, including those who are marginalized in the learning environment. For example, one GLU1–7 student expressed that TSA can

> capture the attention of many pupils … and motivate pupils who are not usually interested in school. These pupils get an opportunity to learn something in different way that's not just 'sit down and read'.

Remarkably, two-thirds of the student teachers changed their attitudes towards Storyline after participation. With an exception of three GLU5–10 students, this change went from negative to positive. One GLU1–7 student said:

> I was not just skeptical; I was negative when I came to Storyline. I thought it seemed like some real nonsense, and when I saw the teachers' role play at the beginning, I thought it was embarrassing. But, then when we were working with the puppets, it was fun, something completely different from what I had expected it to be.

Another GLU1–7 student said that his feelings were initially mixed about making puppets and playing a fictional role, "… but, it's really grown on me, Storyline, as practical as it has been […] and it has been quite an experience. It really has been".

Because GLU1–7 students were more positive about TSA to begin with, the proportion of students who changed their view from a negative to a positive one is higher for GLU5–10 students. For example, one such GLU5–10 student expressed the following:

> I changed my attitude because I realized the value of doing something different, at the same time, I had to challenge myself. It was not a childish process, but more like some childish students. I think most students thought the Storyline was useful after they had tried it themselves.

We interpret that the above students perceive this experience with TSA as relevant for their future profession, and in according to Midtsundstad and Willbergh (2010), as making the content their own (p. 11). Although the exact number of students who will implement TSA in their future profession cannot be known, seven of the students have already initiated and carried out a Storyline in

their practical placements, underscoring that these students' individual meeting with TSA provided for an educational significance, opening up their meeting with the *content* (Hopmann, 2010, p. 11). The students expressed having learned a method that can be transferred to their practice, as exemplified by the following statement made by one GLU1−7 student: "I got a new tool in the toolbox and opened my eyes a little more to aesthetic methods". The students appear to transform the content into a professional competency that includes fostering creativity, implementing active learning, and adapting to marginalized pupils, competencies that are referred to in the Norwegian White Paper, *The School of the Future* (Ministry of Education, 2015) and in the European Community (EC) Competence Frameworks (2016). Experiencing TSA seems to have increased students' ownership to the approach and motivation for using it, which may indicate that they experienced flow, leading to a desire to reconstruct this experience for their own pupils (Csikszentmihalyi, 1990; Dewey, 2005).

Experiencing a Meta-Storyline in this teacher education program may have given these students the essential skills and competencies needed to implement a cross-curricular, collaborative, creative, and student active teaching approach in their classrooms in the future. Their experience may help with creating the framework for 21st century learning and teaching that is described both internationally ("Competence frameworks", 2016; "Framework for 21st Century Learning - P21", 2009; "Education for Sustainable Development", 2013; Wrigley et al., 2011) and in Norway (Bamford, 2012; Framework Plan, 2016a, 2016b; Ministry of Education, 2014, 2017). For these students, active participation in Storyline appears to be crucial for recognizing Storyline as a valuable approach that can integrate learning across the curriculum in school. In addition to actively participating in a Storyline, one GLU5−10 student actually emphasized how it was smart "that we performed a Meta-Storyline and not an actual Storyline, because for us as future teachers it is much more important to learn how to plan a Storyline than to carry out an already made Storyline". It can be argued that the students would also benefit from experiencing an already made Storyline, lessening any confusion between a traditional Storyline and a Meta-Storyline, but this particular student expressed satisfaction for being actively involved in something he defines as more relevant to his future profession. This view of TSA as a valuable learning approach in schools has been supported by findings elsewhere in our research literature. For example, Lindberg (2007) reported that teachers described the structure of TSA as powerful (p. 164), while Adamson (2007) reported on TSA's effectiveness in engaging pupils and bringing out the best in them (p. 194). Solstad's (2006) report showed that the majority of both teachers and students described TSA as "a good method for learning in general" (p. 100). The importance of experiencing a Storyline is further supported when students themselves expressed that they would be skeptical toward implementing TSA without the practical course: "The experiences I have had will help me a lot when I am going to implement TSA with pupils" (p. 99). In line with our students' perception of TSA as a valuable tool that can be adapted for all pupils, Solstad (2006) also found that 75−80% of her respondents described Storyline as suitable for pupils of all abilities, and that, with TSA, the "pupils, who generally do nothing, became very active and engaged" (p. 102).

Although most of the students in our study see TSA as having a high transfer value to their practice in school, one of the three GLU1−7 students and six of the fifteen GLU5−10 students who experienced TSA as less good or negative see little or no transfer value in it. They regarded their learning experience as irrelevant for their future profession. One GLU5−10 student expressed that the Storyline "was absolutely unnecessary and was of little importance for finding my role as a teacher". Taking on fictional roles and

focusing on imagination are used as decisive factors for not wanting to initiate a Storyline in the future. One GLU5−10 student believed that more traditional projects would "… give a better result for pupils, because there is too much … silliness around having roles". Other students who also experienced our Storyline as less good or negative are more open to TSA, although to a lesser extent. One such GLU5−10 student stated that she would not choose to use TSA "mostly because … I am not really a person who is very helpful with such aesthetic things … But if I work in a team and am part of it, I wouldn't say no". Some of these students seem to accept cognitively that the method may work in schools, implicitly stating that they understand that pupils learn in various ways. Therefore, they may see TSA as relevant to learning. One may speculate that these students have gained an experience through the Storyline that eventually could lead them to reconstruct this experience in their future professional practice. These students' findings may convey a narrow understanding of the knowledge, competency, and skills needed for to foster learning environments across the curriculum, as stated in various Norwegian and international policy documents ("Competence frameworks", 2016; "Education for Sustainable Development", 2013; Framework Plan, 2016a, 2016b; Ministry of Education, 2014, 2017). Regardless, the voices of these students raise relevant questions about how to use TSA in such a way that the content becomes more meaningful and relevant for them, thus encouraging them to increase their professional competency (cf. Hopmann, 2010; Midtsundstad & Willbergh, 2010) to facilitate cross-curricular experiences in future classrooms, addressing the demands of teaching and learning in the 21st century. Although some of the students who expressed experiencing TSA in their education course as less positive were able to see its relevance for use in schools, further research is needed to better understand how to successfully implement TSA at the university level to help make the learning experience meaningful for all students.

4. Conclusion

In this study, we have explored how 104 student teachers experienced The Storyline Approach (TSA) and to what degree the experiences of these students influenced them reporting TSA as relevant for them as future teachers. Based on six in-depth group interviews and two online self-reported surveys, the results have shown that most of the students experienced TSA as positive. In addition, their experience with the Storyline in this project was significant when reporting whether they saw TSA as a relevant framework for implementing cross-curricular teaching and learning in their future profession. In this manner, the experience most students had with TSA has provided for opportunities to expand the student teachers' competencies for the 21st century, where future schools will require teachers to have new approaches to teaching and learning, approaches such as TSA, in order to meet the demands of our rapidly changing society. However, even though most of the students have reported a positive experience and attitude toward implementing TSA in the future, not all students experienced TSA in this manner. Further research focusing on Storyline in teacher education is necessary for expanding our knowledge on this specific approach to cross-curricular teaching and learning. Research that focuses on TSA in teacher education would be a positive addition to understanding how to best prepare teachers for the demands of the 21st century.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.tate.2018.09.017.

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