

Becoming a visual arts teacher with a/r/tography:

Dealing with desires, doubts and fears in examinations in art teacher education

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Abstract

Examination practice in art teacher education in Sweden is a part of the development of professional practice in compulsory, secondary and upper secondary education. Visual arts as a school subject entails a hybridity of artistic and didactic perspectives. In art teacher education, a double didactic perspective involves the learning of the student teacher and their future teaching of students in the visual arts. This article focuses on an examination of student teachers in the visual arts. An entry point is the methodology of a/r/tography, which entails exploring different subject positionings as artist, researcher and teacher in student teachers' examination projects. Three examination projects were presented exemplifying how the use of art-based methods supports an understanding of subject didactics in the process of becoming a visual arts teacher. The examinations consisted of written academic texts and art-based explorative investigations in different visual media. The study also elaborated on how

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student teachers' artistic production supports an understanding of the subject's theoretical and practice-based content. The results indicated how a/r/tography can be used for reflected learning in becoming-teacher through student teachers' efforts to encompass their future professional roles. The results also showed the challenges of student teachers in confronting their desires, doubts and fears in their learning processes during art teacher education.

Keywords: art education, a/r/tography, art-based education, examination, teacher education

Introduction

This research considered student teachers in the visual arts dealing with them becoming artists, researchers and teachers, as presented in their master's degree examination projects. A problem for teacher education in general is the gap between education and practice. Teacher education students' lack of preparation for the reality of the classroom can lead to difficult situations and painful experiences when they begin working as teachers. Instead of developing practices from theories and ideas covered in their education, they could instead begin depending on the traditions that already prevail in educational practice (Runesson, 2011). The risk is that subject-specific norms and traditions are reproduced rather than challenged, and the complexities of learning processes in visual arts as a school subject [Sw. *Bild*] are shortened and reduced to use of stereotyped image-making (Hellman & Lind, 2019). The prevailing subject norms concern product-focused orientation, neglecting process-based teaching and assessment, which remains an issue debated in the research field (Hellman, 2017; Hellman & Lind, 2021; Karlsson Häikiö, 2021). The paradigm of end-product-driven neoliberalism has permeated schools worldwide (Strom & Martin, 2017). In this context, art education has differentiation potential; that is, students establish varied solutions and 'answers' to an assignment in teaching situations. Differentiation is valuable since much schoolwork consists of assimilation and convergence processes in which students' answers should be similar or even the same (Hellman & Karlsson Häikiö, 2024).

Teacher education in the visual arts is intended to develop professional practice competences for visual arts teachers in compulsory, secondary and upper secondary

schools. This study aims to make visible the complexities of student teachers becoming visual arts teachers and how they negotiate visual desires, research methods, and doubts and fears in the process of becoming teachers. This aim is guided by the following research question: How do student teachers negotiate their positions as artist, researcher and teacher in relation to challenges within the subject of visual arts, as articulated in their final examination projects in art teacher education? The question was analysed and discussed based on three examination project portfolios where the different subject positionings as artist, researcher and teacher were explored through *a/r/tography* and problematised in relation to double perspectives in art teacher education.

The hybrid nature of art education – double perspectives

The need to intertwine theory with practice is significant to teacher education; thus, the lack of theory is as devastating as the lack of practical experience (Malmberg, 2014). One of the challenges that art teacher educators need to address is the hybridity of visual arts as a subject (Lundh & Häikiö Karlsson, 2018). In the visual arts, artistic working methods are applied alongside teaching methods in educational science (Lindström, 2009). Göthlund and Lind (2010) define this combination as a *double perspective* in which research- and art-based methodologies are used in art teacher education to enhance student teachers' learning (Göthlund & Lind, 2010; Göthlund et al., 2011). Compared to *a/r/tography*, the double perspective contributes to articulating knowledge in the making as a researcher and artist but sometimes sidelines the educational perspectives of the teacher. *A/r/tography* is an exploratory research methodology, a creative practice and a performative pedagogy (Irwin, 2004) entailing the triangulation of positions as artist, researcher and teacher. In this way, *a/r/tography* offers a third position as a teacher for student teachers in art teacher education. The hierarchies of theory/practice, text/image or thought/feeling are flattened; therefore, the roles of artist, researcher and teacher are equally significant and valued (Lasczik et al., 2021). *A/r/tography* thus offers student teachers in visual arts a multitude of subject positionings (Hellman, 2017) in investigations in their studies and examination projects. Art education research with visual methods and artistic production, besides using educational research methods, creates an intermediary space (*intermezzo*, Göthlund & Lind, 2010; Hellman, 2014) between social sciences and the arts. This combination affects art teacher education and

examination practices increasing in complexity for attempting to encompass broadness in the subject field.

Johansson et al. (2011) identify another doubleness in teacher education. Student teachers must acquire general didactics and knowledge of subject didactics, which indicates the challenge of a second doubleness involving student teachers in their learning process and in the future teaching of students. A *double didactic perspective* (Johansson et al., 2011) can thus include teachers' learning and their teaching of students – or students' learning based on teachers' use of their visual knowledge. Double perspectives can therefore be related to the double didactic perspective as different doublenesses for consideration in art teacher education.

Art education in a Swedish context

National evaluations in the visual arts in Sweden show that different conceptions of the subject and often traditional views of the subject content influence visual arts teachers' practices (The Swedish National Agency for Education [SNAE], 2005 [NU03], 2015 [NÄU13]). Historically, art education has followed a product-focused orientation, neglecting process-based teaching and assessment (Lindström, 2009; Åsén, 2006). Its orientation has transformed towards interpreting the visual arts as a school subject based on visual communication and as a part of a wider research field of visual culture, rather than a traditional view of the subject as drawing or image creation. Historically, the subject is also connoted as a free, expressive tradition depicting emotion (Åsén, 2006).

National evaluations in the visual arts have called for collective teaching methods that are participatory and from the students' perspective, thus indicating a still prevailing focus on individual chirographic, product-oriented teaching as problematic. Moreover, a lack of digital equipment and digital skills among visual arts teachers has been acknowledged (SNAE, 2005, 2015). Marner and Örtégren (2003) highlight the necessity of considering the *media-specific* and *media-neutral aspects* of art education. The media-specific aspects of visual learning concern the ability to use the possibilities and limitations of different media and their specific qualities. In media-neutral aspects of visual learning, the medium is less significant than the aim, the thought and the idea behind the work, which is central. The medium can be anything, unlike media-specific skills developed in close proximity to specific materials, techniques and methods (Lindström, 2009; Marner & Örtégren, 2003).

A/r/tographers do not rely on habitual ways of knowing but disrupt taken-for-granted knowledge and inquiries into research, artistic practice and pedagogical engagement. As authors, we turned to a/r/tography to question product-oriented pedagogy through which learning processes are reduced to an instrumental question-and-answer classroom situation. Once the answer has been established or given, the learning process stops. As creative researchers and educators, we wish to challenge normative thinking in art education concerning correct depictions or the tradition of free expression to initiate open-ended inquiries that can lead to unexpected knowledge. A/r/tography is a tool that we use to perform research, teach and creatively devise research and teaching methods and collaborations.

Visual methods and examination projects in art teacher education

Visual research methods are increasingly used in qualitative research in the social sciences, including teacher education (Müller, 2008; Pink, 2012; Rose, 2023). In methodologies in the visual studies research field, data and material are produced that are actively used in the research process along with other sources of information, such as fieldwork, interviews or observations (Rose, 2012, p. 297). Skåréus (2014) stress the use of visual and performative practices applied to scientific methods, such as interviews (elicitation), field observations (visual notes) and triangulations (a/r/tography) combined with action research or ethnographic, narrative and hermeneutic perspectives (2014, p. 90). Müller (2008) argues that the occurrence of visibility and digitisation requires scrutiny of visual competence as a game changer in social sciences, affecting several research fields. According to Springgay et al. (2005), researchers in the field have repeatedly described arguments for considering art as a knowledge form using qualitative methods. In studies to become a visual arts teacher, the relationship between different research methods needs to be clarified.

In Sweden, student teachers use a/r/tography as a research methodology in their examination projects, and teachers in art teacher education use it as a teaching and researching methodology (Hellman & Karlsson Häikiö, 2020). However, the lack of available texts on a/r/tography in Swedish has led to difficulties in teaching about a/r/tography in art teacher education. Art-based educational research (ABER, Barone & Eisner, 2012) can also offer different perspectives through the analysis and interpretation of materials, image production and the documentation of learning

processes, appearing as a hybrid between research-based educational practice and art-based practice. ABER differs from art-based research (ABR) by adding a didactic perspective to using artistic expression as a mode of enquiry and communicating results and outcomes (Karlsson Häikiö, 2014; Lundh & Karlsson Häikiö, 2018).

The context of the study

In the current study, the Art Teacher Education Programme, in which visual arts is one of 25 subjects that can be chosen, student teachers in the visual arts are prepared for final examinations during the entire programme. In their subject studies, they perform and write several examinations, tutorials and finally a bachelor's or master's thesis. Student teachers have individual supervision and participate in group seminars throughout their studies. Several teaching strategies and mediating tools are used in addition to seminars and literature studies: workshops, visual logs (vlogs), tutoring seminars, peer reviews and Socratic conversations (Pihlgren, 2010). These strategies and tools are combined with artistic methods to support the learning process. Explorative group conversations that begin by focusing on, for example, a text, image or object create a dialogic approach among student teachers. Student teachers discuss the nature of the subject matter and learn to relate to and understand different, and often opposing, theoretical and methodological perspectives.

The academic writing process progresses from writing essays to reports and final examination papers. Student teachers also undertake an empirical study that prepares them for the final examination, in which they can experiment with different research methods. During subject studies, they are tested through verbal and written examinations. A vlog comprises text and visual material as a powerful, necessary aspect of reflecting on studies based on general and subject didactics. In the vlog, they document (e.g. with photographs and videos) and describe their artistic work in text not only to make their learning processes visible but also to share them with others. This approach allows them to prepare for academic writing in which the reflective practice readies them for the critique, or the opposition of each other's work, which is part of the final examination courses along with a public presentation.

A theoretical framework and the concept of becoming-teacher

Strom and Martin (2017) draw on the philosophy of Deleuze and Guattari, as they introduce the concept of *becoming-teacher*. This concept entails resisting the neoliberal currents of individualism, instead considering all becoming as an entangled assemblage of multiple actors and elements. One example of an assemblage is the rhizome root system (Deleuze & Guattari, 1987/2004), spreading in unexpected ways. Deleuze and Guattari ask us to think of knowledge as rhizomes instead of as an arborescent perspective on knowledge. Hierarchies between knowledge fields (in this article, social and educational sciences and arts research) are flattened and equally valued. Seeing the concept of the rhizome as a way to describe the process of knowledge and learning, calls for unexpected processes, sudden leaps and finding one's way around obstacles.

Student teacher becomings are not individual, linear processes, from year one to the final examination project, but rhizomatic, dynamic and complex "moving around" processes, much like crabgrass or other weed plants rapidly taking over a garden. The concept of becoming-teacher places the student teacher in an assemblage of different forces, desires, fears, policy documents and the materiality of things (Strom & Martin, 2017). A teaching assemblage then is (most often) a creative function that occurs between multiplicities of things; the physical classroom, bodies, ideas and institutional (school) norms and expectations come together in a composition and produce something new each time (Strom & Martin, 2017, 2022). The view of a student teacher's process of becoming-teacher is thus transformative and dynamic, non-linear and non-directional and is never fully actualised (realised) since it is ongoing. In this becoming, the subject positionings of artist, researcher and teacher (Irwin & Springgay, 2008) are helpful in considering the ongoing inner process of becoming-teacher expressed through different media in art works from different angles with integrated (Irwin, 2004) or entangled (Martin, 2023) positionings, creating a whole that is more than the separate positionings by themselves.

A/r/tography in art teacher education

A/r/tography (Irwin, 2004) is an exploratory approach categorised as an ABR method in which action, learning and meaning-making processes are interwoven (Irwin, 2012). The theoretical base for a/r/tography "draws inspiration from post-structuralism, hermeneutics and phenomenology, but is further developed with

perspectives from post-humanism, post-qualitative research and feminist theory” (Leblanc & Irwin, 2019 in Illeris et al., 2022 p. 5, Authors’ transl.). *A/r/tography* is a means of creating a third space for learning in creative work in the learning design for art teacher education, in which *intermezzo* can appear in studies and in which new knowledge and experience can emanate in the meeting of different modes (Göthlund & Lind, 2010; Hellman, 2017; Skåréus, 2014). *A/r/tography* in teacher education has previously been attempted to, for example, help student teachers create original, creative works through personal life experiences through art creation in *a/r/tographical* practices (Güneş et al., 2020) or with a combination of art-based methods and education for sustainability (Illeris et al., 2022).

Method of study and research ethics

The study is based on textual and visual material from three student teachers’ examination projects at the master’s level of visual arts between 2016 and 2020 in the Art Teacher Education Programme (presented as Student Teacher Projects 1–3). The selection was made from 130 master’s and bachelor’s degree projects. The examination projects were selected because they use autoethnography or *a/r/tography* as a methodology in their investigations. The artistic work in the programme entails methodologies for dealing with uncertainty (Bauman, 2002) and the open-ended learning processes of the not-yet-known (Atkinson, 2015, 2017).

The authors conducted the research in line with the requirements of the European Code of Conduct for Research Integrity (2023) recommendations concerning information, consent, accessibility, and confidentiality and EU recommendations for the use of personal information (EU 2016/679; SFS 2018:218). The empirics consist of content from the examination papers, with permission from the student teachers. To assure the integrity of student teachers, the excerpts selected for publication were pseudonymised. The research material of the study was based on an exploratory investigation used for art-based projects in examinations (Karlsson Häikiö, 2014) and experience with and documentation of the art teacher education programme in question and the Programme Archive (2023), through which statistics and examination papers in the visual arts were collected. The student teachers chose the orientation of the examination projects. Some students combined artistic or art-based educational perspectives with methods commonly used in the social and educational sciences (Programme Archive, 2023). The papers selected for this article included

various methodologies, for instance, a/r/tography, classroom ethnography, visual methodologies, curriculum and interview studies, enquiries and combinations or the triangulation of several of these methods. Karlsson Häikiö is active as an art teacher–educator at the university presented in this study, while Hellman is an art teacher–educator at another university in Sweden. In this way, internal and external perspectives on the material were gained in the analysis and writing process.

Results – A/r/tography in examination projects

To exemplify the examination practice, three examination projects of student teachers were chosen to describe the examination process in which art-based exploration is a vital part, along with writing. In the examples of the student teachers, the way their artistic production supports an understanding of the subject’s theoretical and practice-based content is highlighted. In the examination papers, the student teachers elaborated on how art-based methods can be combined with subject didactics and can be incorporated into the role of becoming-teacher. The examples form the research data and are chosen based on the authors’ experiences as supervisors and examiners in art teacher education programmes.

Student Teacher paper 1. A/r/tography, autoethnography and autobiography

The examination paper in the first example, written by Student Teacher 1, considered the creative process in the visual arts and the choices, uncertainties and reluctances that can be experienced through this process. The study was based on posthuman theory, and the chosen method was auto-ethnographic and autobiographic, with a focus on explorative investigation. In the end, the auto-biographic and autoethnographic focus was analysed through the three positionings in a/r/tography, as a “becoming art-maker (artist), investigative student (researcher), and the role as a future teacher (teacher)” that integrated these different positionings rather than viewed them as different perspectives (Irwin, 2004). The analysis was grounded in the concept of the rhizome (Deleuze & Guattari, 2002), in which the analysis followed erratic, non-linear artistic and learning processes through the positions of artist, researcher and teacher. The method of following processes was undertaken using a cartography (Deleuze & Guattari, 2002) of visual events experiencing the force of art (Atkinson, 2017) in the erratic, rhizomatic artistic learning processes in the explorative examination project.

Student Teacher 1 described Atkinson's (2015) two ontological positions in teaching; in the first, teaching is pre-disposed (pedagogics of the known), with knowledge based on control and assessment. The other pedagogical position is characterised by an open process in which knowledge acquisition is based on creation (pedagogics of the not-yet-known) and dependent on opportunities and obstacles in the educational situation and the learning environment (2015). These theoretical positionings guide the student teacher in the artistic process through painting and experiencing desires and fears (Image 1). Accordingly, the not-yet-known experience



in artistic investigation and Atkinson's concept of the not-yet-known help student teachers prepare for unexpected events in the classroom in their future roles as teachers by indicating that everything in the role of teacher cannot be prepared in advance. The role of the artist through artistic expression and the role of the researcher through writing the examination text clarifies the different subject positionings (Hellman, 2017) in becoming-teacher.

Image 1. Student Teacher 1 in the process of creating a non-linear, rhizomatic painting

According to Student Teacher 1, asignifying ruptures occur when the investigation process takes unknown paths (Atkinson, 2015, 2017; Deleuze & Guattari, 2002). Student Teacher 1 also assumed, based on experiences from teacher practice, that the asignifying ruptures occur in teaching in which students are forced to think in new ways, making them problematise prevalent truths and urging them to attempt to find answers independently. Thus, Student Teacher 1 believed that creative processes in the visual arts could activate students and motivate them to acquire self-contained knowledge rather than imitate others. Moreover, the student teacher in the role of becoming-teacher is forced to think in new ways in which differentiation between positionings is helpful.

The student teacher wrote in her examination text that she believed that experiences of art-based processes in the visual arts classroom reinforce the student's self-confidence through uncertainty and non-linear, rhizomatic learning. Student Teacher 1 meant that this mindset allows for a creative collaborative approach and that visual arts as a school subject can encompass complex thematics, discussions and learning processes. The student teacher referred to Atkinson's discussion on the use of artistic methods, meaning that the force of art "enables the student to think outside the norm and see new possible worlds; and contrasts it with transference, transcendence, already established knowledge and normative thinking" (Atkinson, 2017, p. 2). This is a radical position in which these methods problematise traditional goal-centred teaching that follows subject goals without reflection, critique and questioning (Atkinson, 2017, pp. 11–13).

Analysis of Student Teacher 1's examination paper

The study's methodology was based on autoethnography and autobiographical writing in which personal and cultural levels are connected, in this case, the student teacher's personal experience of becoming a visual arts teacher and school culture. Autoethnography is commonly connected with a/r/tography, and the student teacher referred to Ellingson and Ellis (2007), who viewed "autoethnography as a social constructivist project that condemns deep-rooted binary oppositions, such as those between researcher and research, objectivity and subjectivity, process and product,

self and other, and art and science” (2007, p. 450). The auto-ethnographic and auto-biographic methodologies in Student Teacher 1’s examination project thus served to bridge the double perspective combining artistic and didactic aspects in the visual arts (Göthlund & Lind, 2010) by combining the artistic and didactic aspects of learning. This doubleness also occurs when the concept of the not-yet-known sparks insights into the reality that neither a teacher nor a student can be prepared in advance for everything in the teaching.

Through placing the process of becoming-teacher in the centre of the study, the artistic process is used as a means of foreseeing teaching events in the visual arts classroom with students using a double didactic perspective, or the studies of the student teacher and the future teaching in class (Johansson et al., 2011, pp. 9–10). Different constellations create entanglements (Barad, 2003) that force learning to take directions and form constellations that are unpredictable. These constellations comes forth in a statement in which Student Teacher 1 referred to Irwin (2004), who state that practicing *a/r/tography* is not about “making art/research/teaching;” rather, it is about living three positionings in which the self-perceived experiences are central and “cannot be separated from the relationships and the environment in which they are experienced” (2004, pp. 33–34).

Student Teacher paper 2. A/r/tography, caring and ethical relationships

Student Teacher 2’s theoretical perspective began with using posthuman ontology (Barad, 2003; Haraway, 2016) to propose a caring, ethical art education based on receptivity, negotiation and listening. Entanglements between skill acquisition through the use of materials and reflective and emotive processes play equal parts in the artistic process, according to Student Teacher 2, as Barad (2003) and Haraway (2016) note. In observations of her individual process during the examination project, Student Teacher 2 showed an interest in sensitivity towards ordinary moments in life and in the everyday infused with an affective bodily and intimate presence (Illeris et al., 2022).

Student Teacher 2’s artistic explorative investigation explored considered ways of understanding ethical relations through sculpting informed by care ethics (Noddings, 1992). This approach comes forth in the text, in which she described how a sculpture depicting a teaching situation allowed for reflection on the fear of being excluded, which she elaborated was both a fear of standing before students as a teacher and a

reflection on students being excluded from “the heard” by fellow students, a situation that had to be resolved by the teacher through creating an ethics of care in the classroom (Image 2).



Image 2: Student Teacher 2's sculpture depicting classroom situations through animal metaphors

According to the student, the central concept of her artistic exploration is *becoming* (Barad, 2003; Deleuze & Guattari, 2002), which is discussed from the positioning of becoming-teacher and is also the focus of the artistic process. Sculpting is used to investigate different inner subject positionings in the role of visual arts teacher and an *intermezzo*, or feelings of being in between or didactic doubleness (Johansson et al., 2011), such as expectations of joy in teaching and a simultaneous fear of students and losing control in the classroom. The student teacher investigated these different mental states through a/r/tographic positionings as an artist, researcher and teacher (Springgay, 2008). Student Teacher 2 referred to writing a professional diary to reflect on and overcome discrepancies in the role of becoming-teacher (Springgay, 2008), thus involving researcher and teacher positionings. By playing the role of an artist by sculpting, Student Teacher 2 experimented with different positionings and emotives that the material's character allowed for, in which the material's properties “decided” the form, thus giving the material agency.

Analysis of Student Teacher 2's examination paper

Student Teacher 2 referred to Springgay's (2008) discussion of the blurriness between the roles of artist, researcher and teacher in the a/r/tographic method in relation to the examination project. By taking on the role of an artist through the sculpting process, the student teacher followed the agency of the material. This approach exemplified the materialisation of fears in the classroom through sculpting, making them visible through the use of artistic methods and reflecting on future classroom situations through subject didactics. The material, in this way, influenced the examination results and affected the investigations of Student Teacher 2 as a researcher in the learning process. Thus, assuming the role of artist through sculpture evokes emotions and thoughts of value in becoming-teacher and caring for the students from a double didactic perspective (Johansson et al., 2011, pp. 9–10).

The student teacher claimed that the use of the vlog helped clarify the positionings between reflective (written text) and emotive subject positionings (Hellman, 2017) in the analysis of the visual material produced through the artistic process. This claim indicates that the vlog is a tool for bringing order and preventing *intermezzo* (in-betweenness), which can be seen as overcoming the discrepancy between double perspective in the visual arts (Göthlund & Lind, 2010) through combining artistic methodologies and subject didactics in the analysis of the examination text to help gain insights into different perspectives on becoming-teacher (Johansson et al., 2011, p. 11). Student Teacher 2 noted two sides of ethicality and care for the students, in which ethical teaching can mean an ethical position as a teacher of teaching ethics or that teaching itself is ethical depending on the choice of subject content.

Student Teacher paper 3. A/r/tography and intercultural pedagogy for a less xenophobic school

Student Teacher 3's began her examination project by considering how an intercultural society poses challenges for the school system. The study was based on the student teacher's experience in practice teaching involving newly arrived immigrant students. The study was written in entanglement with posthuman theory, a/r/tography (Irwin & Spinggay, 2008) and the cultural analysis of artworks and photographs based on visual ethnographic investigation (Pink, 2012) through mapping, or cartography, where Deleuze and Guattari's philosophy (2012) and their

assemblage theory were part of the theoretical stance. The student teacher's artistic explorative investigation was an assemblage of everyday objects and events that she documented through photography.

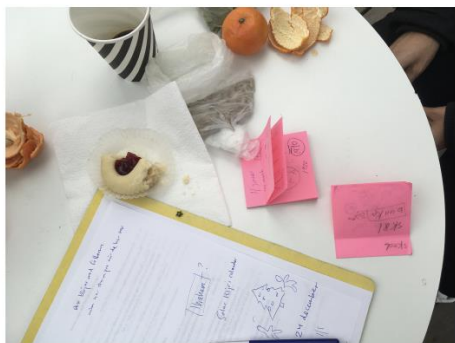
Student Teacher 3 contacted an immigrant researcher, and they decided to collaborate on a project and learn about each other's cultures. They began by eating together and mixing food from different countries, for example, by covering rice with Swedish crisp bread (Sw. *knäckebröd*) and mixing nuts and clementines with the



26/3



30/3



6/4



8/4



9/4



14/4

“raspberry-cave” cookies (Sw. *hallongrottor*), a meal that was enjoyed with coffee and hibiscus tea (Image 3).

Image 3: Student Teacher 3's photographs of intercultural encounters involving sharing and mixing meals from different cultures

Through eating together, the participants engaged in an art event that involved experiencing something new. They worked through several makings and doings, and the student teacher reflected on how her approaches could be appropriate for working with young immigrants at school. Student Teacher 3 reflected on the role of becoming-teacher concerning students who were recent immigrants when practice teaching and meeting with future students in the classroom in relation to intercultural theory (Lorentz & Bergstedt, 2016). The integration of different cultural backgrounds and differing experiences of students was discussed in the context of the students' future role as a visual arts teacher using a nomadic approach (Deleuze & Guattari, 2012). Nomadic education is being exterior to a set or fixed educational context, thus contesting the very identity of the philosophy of education. The student teacher used the concepts of the rhizome and the nomadic to open the future classroom to a multitude of experiences and ways of creating knowledge in the visual arts.

Artists who encompass experiences of exile and exclusion, inclusion and sharing space in their artworks were referred to when considering starting points for the teaching of subject content in the visual arts classroom. The roles of artist, researcher and teacher were discussed as different subject positionings to keep the mind open, positionings that could be achieved by embracing the unsaid and unforeseen in artistic processes. The complexity of the student's future teacher role was reflected on in several ways, such as a fear or a lack of communication with newly arrived immigrant students. The nonverbal qualities of the visual arts could offer possibilities for these students to communicate in non-linguistic ways (Karlsson Häikiö, 2021). Thus, the desire to communicate with students without a common language was the driving force behind this examination project.

Analysis of Student Teacher 3's examination paper

Using an intercultural approach based on cultural theoretical perspectives, the potential of teaching processing meetings and exchanges in learning processes was further investigated through a/r/tography in Student Teacher 3's examination project. Student Teacher 3 used the mapping and cartography (Deleuze & Guattari, 2012) of everyday experiences as a research method, which was referred to as a future teaching method inclusive of students' experiences, thus creating student participation in teaching. The works of exiled artists were used to bring outside society into the visual arts classroom, thus making it an inclusive space (Lorentz & Bergstedt, 2016). The student teacher showed examples of creating safer spaces for dialogues and releasing tensions and of how a/r/tography could be used to make different types of friction and resistance visible to create movement and transformation.

The role of becoming-teacher was investigated through the student teacher's artistic assemblage of everyday objects and events and the documentation of the process through photography. By making and mixing meals, friction and movements between positions occur. For instance, she moved as an artist through photographic documentation, as a researcher through writing the master's text based on the photographic documentation, in turn, based on theoretical concepts and thoughts, and as a becoming-teacher through considering the position of a future teacher working with newly arrived immigrant students. Student Teacher 3 considered the different positionings of the artist, researcher and teacher as a field of tension in which taking different positionings can reflect on the student's future role as a visual arts teacher but is demanding and difficult to maintain during everyday events in the classroom. This challenge points to the difficulty of overlapping the doubleness in reflecting on the teacher's position and the teaching of students (Johansson et al., 2011, pp. 9–10). Student Teacher 3 used the artistic process to create a broader understanding of ethnicity that affected her future role of teaching newly arrived immigrant students, establishing that the visual arts offer other ways to communicate than spoken language.

Discussion

Ethical and relational aspects of aesthetics were visible in the student teachers' examination projects, in which the use of artistic methodologies connected emotional

aspects to the learning process in studies to become a visual arts teacher. The process of becoming-teacher was concretised and highlighted through the a/t/tographic approach of assemblages with different becomings. Through the exploration of different topics in the knowledge field of art education (the role of the teacher, classroom didactics and different perspectives on the working with students), the student teachers reflected on and connected the different aspects in the studies to art-based processes and subject didactics from a double perspective (Göthlund et al., 2011), as well as to the learning process of teacher education and their becoming role as teachers of future students from a double didactic perspective (Johansson et al., 2011). Different positionings as artist (explorative artistic processes), researcher (an open investigative approach) and teacher (becoming a visual arts teacher) overlapped divisions between theory and practice, product and process, and the cognitive and emotional aspects of art teacher education. These methodologies and the use of different art-based methodologies allowed student teachers to develop insight into the manifold nature of the subject content of the visual arts through closeness to the media-specific (artistic materials and techniques) and the media-neutral (idea-based and conceptual) aspects of artistic creation (Marner & Örtengren, 2003). In the examination projects described in the art teacher education programme, the student teachers' artistic production supported the understanding of the subject's theoretical and practice-based content through artistic investigations exploring different subject positionings and *intermezzo* (Hellman, 2017) in becoming-teacher. The use of artistic methodologies, theories and concepts offered a means of artistic work processes becoming part of the studies, of analysing the subject content and of understanding the social perspectives of the subject on an in-depth level (Lundh & Karlsson Häikiö, 2018).

All three student teachers, in different ways, reflected on how the examination project could involve artistic creation, an investigation as a researcher and a pedagogical and didactic approach as a teacher. The three positionings in a/r/tography of artist, researcher and teacher were used to summarise what was found in the student teachers' examination papers and to discuss double perspectives in the visual arts.

Artist–Researcher–Teacher

In the artistic process, the handling of materials does not merely end up as a product. The making of artwork products generates meaningful processes of trying out the

different positionings of a teacher's role. Student teachers' artistic explorations allow them to deeply understand the complex relationship between the media-specific and media-neutral aspects of subject content (Lindström, 2006; Marner & Örtégren, 2003). According to Lindström (2009), artistic processes add new perspectives that are broadened through experimentation with new materials (2009, p. 4). These kind of processes are exemplified by Student Teacher 2, who searched for ways of understanding ethical relations through sculpting and creating inclusion in her future classroom.

Furthermore, experimental modes of learning are crucial for merging artistic work with research methods and imagining one's future teaching profession. Student Teacher 1 discussed how the unexpected can be part of the student learning process in which the not-yet-known (Atkinson, 2015) supports in-depth learning among students. Motivating students' reflective abilities and the role of the teacher in following the students' learning processes more closely in an open mode call for didactic skills on a general level and, simultaneously, a subject didactic perspective (Johansson et al., 2011, p. 11).

Researcher-Teacher-Artist

In Student Teacher 1's study, Atkinson's concepts of the force of art (2017) and the not-yet-known (2015) are essential for creating complex ways of learning and understanding. Student Teacher 3 referred to Springgay et al. (2005), who mean that *a/r/tography* arises from experiences in "daily life" and creates meanings out of "difficult and complex questions" (2005, p. 902), thus indicating an explorative attitude.

Student Teacher 2 used a visual log to gain a didactic awareness of her future professional role as a visual arts teacher, but she also claimed that the artistic process combined with the vlog increased an understanding of a feeling of in betweenness, or *intermezzo* (Göthlund & Lind, 2010; Hellman, 2017), thus overcoming the hybridity of the subject (Göthlund et al., 2011; Johansson et al., 2011, p. 5; Lundh & Karlsson Häikiö, 2018). The vlog was thus used as a tool for in-depth investigation and reflection by writing about a collection of images as part of the artistic process. This state of mind involved several doublenesses in her future role as a visual arts teacher that became evident through sculpture in the examination project, artistic processes in relation to subject didactics (Göthlund &

Lind, 2010) and her reflection on thoughts and emotions a teacher experiences (Johansson et al., 2011, pp. 9–10).

Teacher–Artist–Researcher

By using art as a springboard for teaching, student teachers in the visual arts are introduced to their role as teachers and how to use artistic methodologies in educational activities. Cronquist (2015) describe what contemporary art can offer through transformative learning, specifically that the use of art as a didactic tool can be used to gradually develop the requisite professional qualities for visual arts teachers. A/r/tography can be helpful for reflecting on the future teaching role and the subsequent integration of different cultural backgrounds, as in the case of Student Teacher 3, whose artworks by exiled artists were proposed as possible starting points in teaching the visual arts.

In the case of Student Teacher 1, an auto-ethnographic approach allowed for a deeper reflection on the role of the teacher and offered a means of exploring one's learning process (Ellis & Bochner, 2000). Through the auto-ethnographic method, student teachers can overcome binary oppositions, such as those between researcher and research, objectivity and subjectivity, process and product, self and other, art and science, as outlined by Ellingson and Ellis (2007). The artistic exploratory investigation of Student Teacher 2 showed an interest in understanding and handling knowledge and values from an ethical perspective, which she described as an opportunity to include aspects of everyday life from a perspective of care (Noddings, 1992), which concerns conveying an attitude to the students to ultimately make the visual classroom a respectful place for learning for all.

Conclusion

This study elaborated on how student teachers negotiate their positions as artists, researchers and teachers in relation to challenges in the subject of visual arts based on examination papers in art teacher education at a master's level. These challenges can be elaborated through a/r/tography and the positionings of artist (a), researcher (r) and teacher (t). The three examination projects reflected on the role of becoming-teacher through living the three positionings (Irwin, 2004) and making visible how the interrelatedness of the positionings prepared them for their future roles. Thus, the complexity in a/r/tography is central to a deep understanding of becoming-teacher.

In art and art teacher education, authors have identified four conditions for noting the choice of methods and empirics in producing examination projects by student teachers in visual arts. The first was a double perspective – a hybridity in the base of the subject belonging to educational science but using artistic and art-based methods (Göthlund & Lind, 2010; Göthlund et al., 2011; Johansson et al., 2011, p. 5). This condition comes forth in Student Teacher 1's process, in which she investigated the boundaries of the school subject through rhizomatic painting and adopting an auto-ethnographic perspective to overcome binary oppositions between process and product, herself and her future students, and an art-based exploration and a normative approach to teaching (Ellingson & Ellis, 2007). The second was a double didactic perspective concerning the student teacher's studies and her future role as a visual arts teacher, as well as her future teaching of students in school (Johansson et al., 2011, pp. 9–10). Student Teacher 2 adopted an ethics of care (Noddings, 1992) to reflect on fears and desires in becoming-teacher and to prepare herself for her future role in terms of students and classroom situations. The third was a doubleness in subject content; that is, the subject content contained media-specific (artistic materials and techniques) and media-neutral (idea-based and conceptual) aspects of visual learning (Marnier & Örtégren, 2019). Through experimentation with food and other everyday objects, Student Teacher 3 explored the inclusive aspects of the visual arts through encounters with an immigrant researcher and elaboration on using exiled artists in her future visual arts classroom. The fourth was a double didactic perspective concerning aesthetic subjects. In these studies, to become visual arts teacher, student teachers were examined for their knowledge of general didactics and subject didactics in the visual arts (Johanson et al., 2011, p. 11). Student Teacher 2 used sculpture to investigate fears and doubts through different subject positionings in the role of becoming-teacher, as well as feelings of being in-between, or *intermezzo*, from a double didactic perspective (Johansson et al., 2011). She juxtaposed her learning process of becoming a visual arts teacher with care for future students and a fear of losing control in the classroom.

Irwin and Springgay (2008) claim that *a/r/tography* differs from more traditional ways of performing research, which often generate knowledge in a predetermined and seemingly controlled way. Overcoming norms in teaching and research requires constant elaboration on one's positionings, in which art-based methods are a means of creating complexity and reflection, as shown in this study through the three

examination projects. In a school system in which linear processes of knowledge building are considered ideal and a norm, visual arts as a school subject can be considered confusing. With learning processes that awaken questions rather than provide straight answers with complex methodological choices that take different directions, visual arts as a knowledge field can be experienced as arbitrary. Based on the examination projects by the student teachers in this study, a/r/tography is a complex but insightful method of processing the professional roles of visual arts teachers, thus raising an awareness of the significant aspects of the profession despite discrepancies, feelings of in-betweenness, double perspectives and the subject's hybrid character.

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