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From an Artist into an Art Researcher

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Abstract
In Finland, art research has strengthened due to scientific education in the field of art, and yet, the combination of art and science still arouses doubts. The purpose of this article is to analyze the nature of this juxtaposition and discuss art students' ability to scientific work. Artistic talent is considered an extra gift that can enhance and contribute to scientific research, and new research paradigms are seen to provide new opportunities of conducting art research. However, certain prejudices challenge art students' scientific work that have to be discussed in order to develop academic art education and research. Supervisors of research have a salient role: they need profound research skills but also understanding of art, not to mention their ability to supervise students' research in an emphatic manner. Finally, the importance of cooperation between the representatives of art and academic world is pointed out as a means of enhancing art research.
Keywords: Art Education, Art, Art Research, Higher Education.

Introduction

The Faculty of Art and Design at the University of Lapland offers artistic students with preparedness to discuss artistic, theoretical, and scientific questions of the field. Their studies focus on practices of artistic fields, theory of picture, artistic expression, and research. Studies are supposed to develop independent artistic and scientific information acquisition and ability to apply knowledge and do research. The theory, practice, and science of art lay the foundation of constructing a more profound professional identity (University of Lapland, 2013).
The education leads to the degrees of Bachelor and Master of Art. The goal of these degrees is to provide students with a general preparedness in the field requiring artistic and scientific expertise. Moreover, students achieve eligibility for further studies and continuing studying (University of Lapland, 2013). Teaching and studies are connected to research and productive action (see also Macleod & Holdridge, 2004).

In Finland and at the University of Lapland, art research has strengthened due to scientific education in the field of art (e.g., Lampela, 2012; Mäkinen, 2012; Nikula, 2012), although approaching art with the means of science has risen suspicion (e.g., Ehrenzweig, 1967; Maclagan, 2001). Next, the nature of this juxtaposition and bring out art students' perceptions of their ability to scientific work will be discussed (see also Pritchard, Heatly, & Trigwell, 2005). The

purpose of this article is to bring out and analyze the various sides of art education and the relationship between art and science.

Art in a Scientific Sense: What is Science – What is Art?

The degrees of Bachelor and Master of art consider questions and problems of art as scientifically approachable. However, the fundamental question is what we mean by art and artistry and science and scientificality (Gilbert, 1991; Robson, 1955). At the moment, it is hardly possible to comprehensively and rigorously define art or science. Instead it is crucial to see the societal and historical connection between the concept of art and science: the interpretation of art or science and their function changes in the course of time (Allison, 1994; Leary, 2001), and the history is long (Kernan, 1956; Provencen & Provencen, 1984; Robson, 1966).

In order to discuss art with the means of science, we have to analyze the nature of science. Science is systematic production of new information (Gibbons et al., 1994). Therefore, science is action that pursues and obtains new information. Science is expressed through language, as arguments and propositions. But not any argument can be called scientific information: scientific information has to be justifiable, systematic, and revisable, and pursue finding generalizations and regularities. The purpose of science is to find regularities from the reality, explain and understand, analyze, categorize, and interpret the manifold reality—and finally, construct theories (Laursen, 2012).

Thus, research aims at constructing new information about the research target. And when this goal has been reached, the information is usually transmitted to others, too (see Macintosh, Beech, Antonacopoulou, & Sims, 2012). Research therefore aims at constructing consciousness (Räsänen, 1997; 2005). When doing research, a researcher becomes aware of the fact that his or her viewpoint is always more or less one-sided, and the information acquired by the research are not comprehensive or definite for good. This is why researchers should deepen their consciousness all the time (Austin et al., 2012).

In all, research can have general scientific or applied significance but it also has an educative meaning for researchers themselves. Research can make a researcher orient to the reality in a totally new way. People want to be located to the reality in various ways (Hecker, 2012). This is how research influences people who want to be conscious of their own action and preconceptions. Research helps researchers to reach self-consciousness, realize the nature of their work, and grounds of their thinking (Baunsgaard & Clegg, 2013). In this perspective, research also requires theoretical framework within which people's action, changes, and their regularities can be observed.

The increase of qualitative research methods in human sciences during the last two decades has opened new ways of viewing information, reality, researchers, research, and science (Bryman, Becker & Sempik, 2008; Gwyther & Possamai-Inesedy, 2009). Likewise, qualitative research methods have provided new ways of researching art, too (e.g., Eisner, 1991; McNiff, 1998; Sullivan, 2009).

According to Eisner (2002), people who work in the field of art have always considered it more important to understand relationships than separate, atomistic units. Qualitative research methodology highlights holistic viewpoints and pays a special attention to the manifold shades of practice and the originality of outcome and process. Artists have also emphasized the meaning of shades. In addition, they are important in art education and learning (Efland, 2004; Purves & Lotto, 2003; Tufte, 2006).

Traditionally, a researcher's personal voice or presence has been dispelled from research reports because they were considered a sign of unhealthy subjectivity. Newer research methods downright encourage including the researcher's voice and presence. Those who work in the field of art have always found their personal voices important, concludes Eisner (1991) and continues that newer research methods do not only emphasize the author's voice but also admit that esthetically formatted writing can enhance empathic experiencing and thus enables such understanding that would be impossible otherwise. From this point of view, qualitative research methods are closely connected to art education. Art education has always put emphasis on the form as creator of emotion and the relationship between emotion and profound understanding.

Artists as Researchers of Their Work: On the Contents and Meaning of Art Research

Can there be a more important research target than artists researching, describing, and evaluating what happens is art and what art is all about (Provencen & Provencen, 1984; Robson, 1966)? This kind of research provides a better understanding of what art is, what it covers, and what kinds of forms art can have. By researching art, increasing knowledge and understanding about the content of art and its functions, and analyzing art and making of art artists' ability to become sensitive and further develop artistic creativity, production, and processing can be increased (Mumford & Gustafson, 1988).

Even when art is defined only as a personal creation process, it can be approached through scientific methods (e.g., Oxman, 1995). A common belief seems to be that questions of art as such a phenomenon requiring individual creativity and intuition, and involving human emotions deeply cannot be researched at all (Wood, 2000). It is even regarded that creative artistic expression can downright suffer from being interpreted by language or words that are not familiar to art. Certainly, artistic, creative, or esthetic experiencing and expression include features that are difficult to study scientifically. However, understanding of the possibilities and tasks of scientific research has constantly become wider (Freeman, 1994).

An artist's own action, purposes, and their interpretation can become an essential part of research which means that every process of making art with all related phases can be considered a research situation. Making art requires analyzing, observation, and interpretation skills, and many kinds of technical skills (Cupchik & Gebotys, 1988). Already the designing phase involves various solutions regarding the structuring and evaluations of materials, and so on. Along with the development of a researcher's attitude, his or her artist-personality and personal attitude to work develop. Through research, a researcher can focus on further developing his or her work, innovations, and related experiments.

Artistic work requires constant evaluation of one's own work and profession, and thinking of how the work should be renewed. A challenge of education is to encourage artists to critically evaluate prevailing practices and familiarize with the phenomena of art by analyzing those factors that have led to the current art culture. In addition, artists should look for ways of doing otherwise. All this requires that students have the opportunity to work in such education atmosphere that directs to the development of critical consciousness.

Attitude that aims at active development of profession is similar to a researcher's attitude toward research (Oxman, 1995). The most important features of research are criticism, questioning of obviousness, searching of new viewpoints, experimenting, evaluation of results, and making new decisions concerning the continuance of work. The similar process should be part of artists' work too, and therefore they should be led to see their work as constant research. Artists need to be prepared for doing and exploiting art research, but most of all, they would benefit from the ability to develop their work by considering it an ongoing research field (see Kallick-Wakker, 1991; Määttä & Uusiautti, 2013).

Considering work in the field of art as research does not mean that an artist could become an outsider, distant observer who follows events far away. In some cases, it might be possible but an artist as a researcher of his or her work actively participates in these events. Therefore, artists have to be provided with such research methodological guidance within their studies which familiarizes them with research methods of the field, participatory observation, interview methods, and the process of action research (Jackson et al., 2007). The academic thesis that is a part of art education should encourage and guide artists to work as researchers and developers of their work (see Määttä & Uusiautti, 2013).

If an art student is required to evaluate, select, justify, develop, experiment, and search during his or her education, the student's work and its development and renewal can be given space (Bordens, 2010; Mackinnon, 1965). Artists cannot engage to "here and now" in their work or adjust to the prevailing situation, but they have to see far in the future and evaluate themselves and their work as resources that involve new possibilities. An artist should look for a new direction to his or her work. In order to do that, artists have to be equipped with the ability to critically evaluate, adopt a questioning and evaluating attitude to work and society, and thus enhance renewal. All this can be provided by research-based orientation (Newbury 1996).

What does Art Students' Research Readiness Consist of?

Next, art students' research readiness and factors it consists of will be discussed. This review is based on my long-term teaching and research experience at the Faculty of Art and Design (see Määttä, 1994; 1998; 2001; 2012). Artists have various characteristics enhancing art research. On the other hand, there are certain challenges and obstacles related to art research. I have categorized the strengths and challenges into four main categories.

Strengths

The Abundance of Experience in Art Practice

Students who become selected in art education at the university possess rich practical experience. They have knowledge of art education from several years, even decades. Thus, they also have all the prerequisites of facing the practice of art and sensible research targets emerging in the field. Practical experience also is a source of motivation (Jarvis, 1999).

In practical problem-solving situations, art teachers' action seem to resemble researchers' work: problems and their possible solutions have been tested and evaluated following the process of action research (Altrichter, Posch, & Somekh, 2005; Mason, 2005). Unfortunately, the development of practical work has not been made a good use so far but it has remained as individual persons' practical knowledge (Prentice, 2010). Art educators work alone, follow their own, individual paths, and develop themselves through their own mistakes. If we had systematically collected information about art education, we could increase knowledge of the phases and difficulties of work, and make finding of new solutions and options faster and easier (see also Anderson, 2001).

Artistic Talent

Students who have been selected to art education have a special talent: the talent of artistic production, artistic talent. Only they know the process of artistic production personally. They have such knowledge that only artistically-talented people can have. It is important to highlight this knowledge in order to further exploit these exceptional resources to benefit talented people themselves and society (e.g., Hall & MacKinnin, 1969).

Scientific Production is Similar to Artistic Production

Certain features that are connected to artistic talent are also prerequisites of the ability to do research. To be able to artistic expression, one has to have the ability to analyze and observe the reality. Furthermore, one has to be curious about and willing to see the reality as manifold and all its shapes and possibilities. As creative people, artists have ability to tolerate inconsistencies and see optional possibilities and solutions. Furthermore, they have to be able to approach phenomena courageously: artistic production is a jump to the unknown because it involves many open situations, moments of despair, feelings of frustration, and difficulties in finding answers (Page, 2012).

Notably, the same features concern researchers too. Both art and science necessitate creative capacity, courage to seize questions that people do not know about and that need to be somehow described, understood, or explained.

Wish to Produce New

Finally, artists have one more feature that is typical of artistic production and that is also necessary in research. Namely, the wish to produce new and reach such solutions that outlines the reality in a new way—in other words, it is the wish to analyze the multidimensional nature of reality.

Challenges

Prejudiced, mystifying conception of science

It seems that research can be hindered by students' vague and mystifying preconceptions of science and research. They assume that science is something exceptionally demanding, requiring skills they do not have. It is a question of not more than lack of knowledge and erroneous knowledge and expectations.

The starting point of research is to provide students with concrete and illustrative information about what science, scientific action, and scientific rules are. As these concepts and phenomena come clear, students will also realize how everyday-knowledge of art is a central condition of research. Common sense and scientific action are in many ways connected.

Restricted Knowledge of Scientific Methods

Students have considered the quantitative, statistical approach the one and only research method with the emphasis on statistical methods and analyses. As research approaches in human sciences have become more versatile, art teachers can apply knowledge of research methods in a more varied way in their work (Seago & Dunne, 1999). In other words, introducing qualitative research methods and comparing them with traditional quantitative approaches gave students a refreshing stimulus for research. They started to believe that they are able to do research and can be experts in their field. Therefore, the emergence of new research paradigms clearly offers a new kind of encouraging atmosphere and methods suitable for art research (Leary, 2001).

Lack of Self-confidence

The aforementioned challenges are connected with obvious lack of self-confidence in students. They experience uncertainty because they assume that they are not able to do research or have not gotten adequate education for it.

Concern over Incapability to Written Expression

When it comes to art students, they are used to and aware of their talent in visual expression but can feel inexperienced in written expression. Writing a thesis can be difficult or frightening. However, this difficulty appears to me as only a deluded prejudice. University-level art students have a strong basic education and versatile concepts available. Therefore, they do have all what it takes to written expression. Most of the applicants for art education have graduated from the general upper secondary education. It provides necessary skills for written expression.

Furthermore, visual production and the ability to express oneself do not prevent written expression or decrease the ability to write. They are not exclusionary, quite the opposite (Macleod, 2007; 2013). The ability to visualize is an extra skill, a special talent that many other researchers do not have.

In addition, the ability to express oneself in written form develops when the skill is practiced. The more one writes, the better one writes. Indeed, it is important to encourage students to produce texts and combine creative and analytical work (Hockey & Allen-Collinson, 2002). Starting is often difficult and therefore having students make the decision of starting writing is crucial. One has to

make oneself work instead of waiting for the inspiration endlessly (see Gajdusek, 1994). Writing can ignite inspiration, too (see Määttä, 2012; Uusiautti, 2012). This too is analogous with artistic work.

Conclusions

Doing research is not easy, nor is making art. Both involve moments of despair and vanity, and open-ended moments that demand many kinds of efforts in order to be solved. Usually, a solution can be found but still the outcome does not always satisfy.

Research and art both require guidance that pays attention to the special nature of artistic action. The one supervising art research has to be expert of research. The supervisor has to be able to give information about research and scientific action, and often at a quite concrete and clarifying level. Therefore, the supervisor of research has to know the research process and be able to guide students in an empathetic manner. Then, students can lean on their supervisor and notice that their problems in research are quite natural and not so unique or exceptional.

A supervisor's research expertise is manifested as the ability to guide how a research theme should be defined, to lead students think what are the core question the research is based on. After becoming fascinated with the theme, students can easily widen it and take various side-tracks. The supervisor can help students keep their research realistic and possible to implement with the available resources. It is not the question of telling what to do but ask the right questions that help students find the thread: to analyze the research theme from its most essential points of view.

Yet, just doing research and knowing the research process are not enough. The supervisor must also know art, its core contents, and problems. In practice, expertise in these two areas is not easy to combine. Perhaps, the most fruitful solution to art research would be to do multi-professional collaboration between professionals of various field of art and science. This is the best way of realizing multidisciplinarity (Choi & Pak, 2006) interdisciplinarity (Luke, 2003), or transdisciplinarity (Stokols, 2006), and crossdisciplinarity (Nicolini, Mengis, & Swan, 2012), which open new ways of doing art research and innovative opportunities.

The supervisor should encourage and support students by providing his or her support even in the smallest progresses during a research process. Consequent feelings of success increase students' sense of capability, self-confidence, and courage to seize more and more difficult questions.

The ability to encourage students is connected to one significant feature required of the supervisor of scientific theses: the supervisor should have a very flexible attitude and open mind to various research themes and research approaches, and not just stick to one certain research paradigm. Furthermore, I want to emphasize the fact that the supervisor, like any other teacher, has to have a strong belief and trust in artists' and art students' ability to do research, that they have the same prerequisites of doing research than other university students do.

In addition, the researchers' team, the students doing research under the teacher's supervision, has a great role: at its best, it provides students with mutual empathy and with an encouraging atmosphere (Langley et al., 2013). Although a researcher worked mostly alone and by himself or herself (Bruns, 2013), the tripartite collaboration between the researcher, the supervisor, and the research team has been thanked for example in Nobel-prize winners' speeches (Jacob, 1988; Krebs, 1960; Warburg, 1964).

Discussion

Although art research has to lean on methods of other disciplines, the field of art has its own, specific research target that has to be studied from its own premises. This is how art research can develop its natural research approaches and methods—given this perspective, artists and connoisseurs of art are the best experts. Their knowledge and experiences in collaboration with other human sciences can lay the foundation of art research.

Science and art have an essential place in our lives and their meaning and function cannot have a principled contradiction. Both of them widens our perception of the world. It is important to acknowledge the interaction between science and art as it means the possibility of doing research in the field of art. This interaction also means the possibility of open and close cooperation between representatives of science and art (Coutts & Jokela, 2008; Hanna, 1994).

Art and science both increase people's awareness of themselves and life. Definitions are endless: life is short, art is long. What kind of reality, truth, value, or meaning is included in this time, life, and environment lacks a definite answer. Science cannot explain or describe the truth exhaustively. Still, artists and researchers have every reason to continue searching and asking.

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