RE-THINKING TEACHER PROFESSIONAL EDUCATION: USING RESEARCH FINDINGS FOR BETTER LEARNING YEARBOOK OF TEACHER EDUCATION, ICET 2017

21ST CENTURY SKILLS FOR LIFELONG LEARNING

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This paper presents the results of a recent study of students' perceptions of their education, targeted at three grades of students in a Swedish upper secondary school's Arts program using an auto ethnographic research method. According to the European Union, students of today need "21st century skills" for lifelong learning to be successful. These skills include critical thinking and problem solving, information literacy, global awareness and an overall need for mastery of knowledge, ranging from facts to complex analysis. To implement successful training programs for the future we must start a dialogue with the students focusing on their needs for better learning.

Introduction

According to the European Union, students of today need "21st century skills" for lifelong learning to be successful. A global challenge for democracy is that political changes transcend national frameworks, while influence over the politics remains at a national level. When democracy is moving across national borders to a supranational level, important social issues, such as how we can achieve an equal level of education, will be discussed in a wider perspective. Kemp (2005) notifies that globalization increases young people's opportunities of mobility within and between different cultures, as active world citizens. Nihlfors (2008) suggests that globalization has the same effect on schools and learning as on other areas of society, with increased mobility and competition as consequences. A starting point for exploring potential educational futures is to identify the key variables of the development of 21st century educational policy and leadership (West-Burnham, 2016).

The knowledge, skills and commitment of teachers as well as the quality of school leadership, are important factors in achieving high quality educational outcomes. Good teaching and the ability to inspire students have a positive impact on young people's futures. Mulford (2008) states that priority should be on structures that provide time for reflective dialogue and action, as well as time and resources to

progress through the developmental stages involved. Student voices and leadership should have a much higher priority in schools and their communities.

School leaders need to recognize and concretize given goals and negotiate different interests, needs and requirements and finally consider them in their daily work. A dialogue between all stakeholders is a transition to a more democratic leadership, according to modern demands of influence and decision-making participation. When school leaders design and construct the content of teaching and learning processes in a dialogue with both teachers and students, the school's possibility for high quality outcomes will increase (Sträng, 2011).

School leadership for learning

The European Council conclusions on effective leadership in education (Council of the European Union: General Secretariat, 2013) emphasize that good educational leaders should develop strategic visions for their institutions and perform as role models for students and teachers. The needs to maintain the balance between pursuing long-term development goals and adapting them to a rapidly changing reality is a challenge for the school leadership. The values to which the school community has committed itself should prove to be viable. The effectiveness of school leadership is reflected upon how well school leaders can adapt to their new roles and how competent they can become in co-designing and co-implementing policies for equity and learning, as well as in encouraging the establishment of participative, democratic school cultures. Reform policies can only be coherently integrated into the life of schools and classrooms if a capacity building approach for professional school leadership pays attention to topics like; reducing complexity, coordination, learning context, energization, connections for learning and system-wide change. An important part of school leadership is helping a group to develop shared understandings about the school organization and its activities and goals that can undergird a sense of common purpose and vision with the education (Hallinger and Heck, 2002). Contemporary research notes that school leadership is second only to teaching in school-related factors in its impact on student learning, according to evidence compiled and analyzed by the authors (Leithwood, Louis, Anderson & Wahlstrom, 2004). The initiative for the study presented here was consequently from the school principal.

Conceptualizing student learning

All youth in Sweden who have completed compulsory school are entitled to a threeyear upper secondary school education. Upper secondary education provides a good foundation for vocational activities and further studies and for personal development and active participation in the life of society (Skolverket, 2012). The upper secondary school consist of 18 national programs each lasting three years and divided into upper secondary foundation subjects, subjects common to a program, orientations, program specializations and a diploma project. The Arts program is a higher education preparation program. With a diploma from the program, students will have the knowledge needed for higher education studies in primarily artistic, humanistic and social science areas. The core of the education is that students should create, experience, and interpret art and culture. Creativity, curiosity, communication, interaction and the ability to be personally creative and performance oriented should be central in the education. Taking responsibility for one's own work, managing and assessing large quantities of information, examining questions from different perspectives, using digital tools and media, and having the opportunity to broaden and specialize are basic parts of the education as well as preparation for artistic and scientific studies at higher education level.

The present study is conducted in the Arts program at an upper secondary school and was predicted on the teachers and the principal's perceptions of student learning as motivated, contingent and well situated. Central to this perspective was the assumption that students are active learners who reflect upon and may actively participate in investigating their own practice (Jurasaite-Harbison & Rex, 2013). The aim of the study was to investigate upper secondary school students' personal and informal approaches to learning, and to determine the extent to which these reflected the effects of teaching and assessment demands rather than representing relatively stable characteristics of the individual learners (Entwistle & Ramsden, 2015).

Schools are also sites for ongoing organization, in addition to being institutions with the core business of teaching. The improvement of student learning cannot be an exclusive task for individual teachers or school leaders, but a shared responsibility of teachers, school leaders and students. A key to successful improvement may be to expand the collective learning for students and other staff in mutual activities (Larsson & Löwstedt, 2010). Informal student learning is often defined as mainly spontaneous and incidental or planned by the student in settings and time frames such as individual reflections on teaching or interactions with other students in the classroom, but also in school hallways, cafeteria and other places for learning and training (Jurasaite-Harbison & Rex, 2013)

Method

In the study of upper secondary school students' personal and informal approaches to learning I used an auto ethnographic strategy of inquiry with letter writing as research method with the aims to describe and systematically analyze the students' personal experience in order to understand their experience of learning (Ellis, Adams, & Bochner, 2011). The empirical material consisted of 89 letters from all three grades of the Arts program in the investigated school, located in a medium-sized Swedish city.

In the letters, the students are supposed to give an account of themselves, their own experiences and the experiences of another. As a research method, the merits of letters are the quality established the give and take of an imaginary conversation between the researcher and the writer (Clandinin & Connelly, 1994). This conversation progresses simultaneously on several levels as dialogues within the text of letters by writers with similar voices. These dialogues are well suited for collective studies of pedagogical phenomena in school life, in which different perspectives and aspects visualize. They function as a kind of "black box", in search of a better understanding of educational processes (Dahllöf, 1999). The purpose of the study is however not primarily to achieve a total picture of the situation in school, but to maintain a broader understanding of student's learning from the individual's point of view. The reinterpretation that takes place in the letters can lead to different understandings of what actually happens and provide important knowledge of the values and motivations among students in secondary school and their approach to learning. Research of this kind cannot and should perhaps not even be value free, but it is helpful to have the values brought out explicitly (Ramsden, 1984).

Paying attention to the letters' structural form, word choice and phrasing I coded the students' writing to describe how the positioned themselves as learners. I also looked for signs where the students indicted learning without explicitly stating it as such, e.g. by saying, "I like to be doing, I am finding. I love to learn". Statements such as these showed that the writers positioned themselves in a learning process more than taking active steps to learning (Jurasaite-Harbison & Rex, 2013).

Critics have argued that writers create the lives they write about (Smith, 1995). Common to all perspectives on auto ethnographic strategies for research is the assumption that people enter into conversations with certain goals. Even when they cooperate to provide information for mutual understanding, they attempt to attain certain personal goals. Having goals did not necessarily made the students in this study planned communicators, merely spontaneous writers with a more or less clear sense of what they wished to obtain (Reardon, 1987). The opportunity for students to write a letter to their teachers and the principal about their experiences of learning in upper secondary school perceives rather as the trading of resources of attention, concern, support and other personal needs in an effort to achieve their goals (Roloff, 1981).

The students were informed before the study that teachers and principals to improve their performance and work environment should use their letters. Through the students' own interpretations of these objectives, the school should have a higher degree of autonomy to implement the outcome of students' interpretations in planning for teaching and learning. In the study, therefore I had to uncover and interpret the underlying patterns of the students' values and motives for their approaches to formal and informal learning. With this knowledge, I should in addition contribute to increased awareness of students' learning to their benefit on the organizational level (Larsson & Löwstedt, 2010).

As a qualitative researcher, I self-consciously drew upon my own experiences from the research field as a resource, which allowed me to identify denotative and connotative meanings and make connections of larger structures, forged out of the empirical material that gathers in the study (Denzin & Lincoln, 1995; Reardon, 1987, Sträng, 2011). To achieve empirical soundness I followed a systematic process of interpretation and representation that exposed the statements from the letters in three categories as students' conditions for learning. The categories were pre-selected by the principal and the teachers.

Results: Student conditions for learning

In the following section, I provide brief summary descriptions of the three domains that compromise the conditions for students' personal and informal approaches to learning in upper secondary school. When describing their experiences, the students express both emotional and analytical qualities, from "emotional learners" (Jurasaite-Harbison & Rex, 2013) to a higher degree of reflecting on teachers' role for students' learning over time. The relations with teachers respond with the students' different types of social and professional need. First grade students look for a safe haven in the new school environment, while the graduating students have experienced the importance of knowledge and skills for lifelong learning and adult life.

Security

First grade students look at security as mainly a personal matter. In their letters, they express the good feeling of waking up in the morning without anxiety and go to school without being unwelcome or unwanted. They describe the importance of feeling comfortable before meeting other students, teachers, environments and lessons. It is important to be yourself and talk to everyone in the school without fear.

Most of the time I feel safe in school. I adapt myself easily to different situations and I am rarely insecure but mostly the teachers who give me security by respond to me and listen to what I have to say.

You greet teachers everywhere, not only in the classroom but also in the corridors, and then I feel safe.

If you do not feel safe, you cannot concentrate, and then it is harder to learn

Security for a second grade student is daring to ask teachers when you do not understand, and correspondingly explain to your teachers that you really have learned. This makes students more motivated for learning and reduces the fear of unexpected events during the school day. The role of teachers in student learning is increasing and the students regard the class as a family. By participating in various social and cultural practices, the students will acquire resources requisite for both reproducing and transforming relevant social and cultural formations (Foucault, 1979; Kamberelis, 2013).

Our class is like a family, where no one is mean to me. Art students will stand out and it is the very purpose of the program, daring to be you.

Teachers bring a sense of security. For example, when teachers help me to feel safe is when we have oral presentations, and there are several different options to present my work.

Third grade students note that issues of all kinds are solved quickly by teachers and co-students, but it is a problem when they don't know what is expected from them. Another issue is when the feedback from teachers is too slow or inexplicit. The dialogue between students and teachers is an important source for learning, as well as the friendship between classmates. In a study of classroom culture Kamberelis (2013) speaks of «fourth-grade professionalism" with key components of social responsibility and increased self-regulation among students. In my study, the "third grade professionalism" in the classroom is a good example of a professional learning community, including students and teachers, and ultimately the principal. The idea of the professional learning community is that formal education is not simply to ensure that students have taught but to ensure that they learn. The shift from a focus on teaching to a focus on learning has profound implications for school improvement (DuFour, 2008).

Security for me is that the education has a clear sense and that different subjects and topics fit together so I can see and understand "the big picture"

I feel very confident with teachers who I have known since first grade. One good thing is that you meet them often, even outside the classroom

For three years, I never felt unsafe. My classmates give me security and the teachers give me the help I need for learning

In third grade I have grown as a human being with much bigger self-confidence than before. This is all entirely dependent on the Arts program and its teachers and students

Teaching

The importance of teacher performance is fundamental in educational research. Today hardly anyone would question the impact of good teaching for students' learning. Nevertheless, good teaching in theory might not automatically match the students' personal and informal approaches to good learning. In their letters, the students from all three grades agree on a few basic criteria for effectiveness in teaching and learning.

The first criteria is *fast and constructive personal feedback* from the teachers, directed at a particular student rather than a group of students. For successful communication, students and teachers should respond logically to each other with at least a minimum amount of feedback, coherence and interaction (Reardon, 1987).

I sometimes feel that feedback does not give me the chance to explain how I experience the teaching and what I think the teacher should do to make it better for me.

The teachers should have feedback that is more individual with students so we could get e a better view on our results and performance

I get a lot of support and good feedback that tells me what I should do to be a better musician

The second criteria is how to use and exploit the potential of the technical equipment. According to the students, the teachers cannot always effectively adapt their teaching

to the new technology, which prevent the students to use their own technical knowledge and skills for better learning. The school's choice of equipment is also questionable by critical students.

I like to have an IPad, but a PC had been better because PC is better suited for schoolwork Our IPads are terrible...they are worthless as IT tools and it feels ridiculous to walk around with it...besides I will also say that the school should find new ways for us to present our work...It's Learning is the worst I have ever seen!

I do not like my Mac so much...ok for Photoshop, Illustrator and InDesign...but Premiere is useless because it is so slow

The third explicit criteria for good teaching is *value creation as educational practice*. According to the educational goal of training the Art students in managing and processing information and examining questions from different perspectives, the value creation as educational practice is a crucial part of increasing the students' approach to learning.

The concept of value creation originates from the Japanese educator and philosopher Tsunesaburo Makiguchi (1871–1944), considering the lifelong happiness of learners to be the authentic goal of education. Makiguchi's educational theories about value creation formed the basis of his most important work, The System of Value-Creating Pedagogy (Soka kyoikugaku taikei), published already in 1930 (Gebert & Joffe, 2007). In a recently published doctoral thesis the Swedish researcher Martin Lackéus (2016) express that an educational philosophy letting students learn through creating value for others and giving teachers prescriptive advice on *what, how* and *why* issues in education will trigger emotional learning and allow for deeper learning as well as increase specific knowledge, skills and attitudes. Laszlo (2007) states that students can more easily access information at a deep level where their egos interfere less. Despite the challenges in assessment, there is thus a need for evaluate the educational philosophy's effectiveness in terms of learning outcomes.

The Arts program develops your self-consciousness when you are standing on the stage and play your own music for other students and teachers.

I highly recommend the Arts program to all who love music and want to improve your skills and knowledge. Here you will have the best school years ever... you will love your class-mates because you are all here for the same reason... the love of music

It is very good that the school have started with value creation for learning, instead of all the time focusing on students' results and performance

Motivation and Meaningfulness

The students' motivation should be set against what the school is aspiring to achieve. A clear vision will set the context for the school to make sustained improvements and move forward (Mulford, 2008).

The impact on student outcomes is in basic the measure of the school's effectiveness in producing skills and knowledge. To involve the students' own knowledge, skills and social competence in the school improvement process will increase their motivation of the need to learn how to make well-informed decisions for their upcoming adult life (Lazarova, et. al., 2016). In their letters, the students express their motivation explicit as a source of values, close connected to security and teaching as the two other conditions for learning. Values are synonymous with meaning or defined as concepts of the desirable with motivating force (Hodgkinson, 1996). There are certainly values that sustain minor motivation, but values seem nevertheless to be an important factor of the students' attitudinal orientation and understanding of their education.

The school motivates me because it is a big part of my daily life and I want to do the best of my three years here

I feel motivated because I know that if I do not make it, I will always have good help from my classmates, my teachers and my parents.

The first year I was not very motivated but when I think of the future, I do understand that I need a good education to have a good life as an adult

Sometimes the school do not motivate me so well. I would learn how to buy a house, pay bills or just to live as a civil person

What is motivating me in the school is that I learn how to learn... how to make memories... find friends... a meaningful journey, that is it!

In the study, I identify two kinds of student motivation. The first kind is achievement motivation (Klemp, 1977) with the need to do something better than it has been done before. The abilities for this need are time phased and realistic goals and seek feedback for the own performance. The second kind of motivation connects to networking, goal sharing and a micro-political awareness in-group coalition with regard to level and results and orientation to personal and collective goals. Klemp (1977) claims that achievement and power motivation together form a basic ability called *cognitive initiative*, which refers to how the students define themselves as actors in a situation. In the study, that is the students' definition of themselves as members of the Arts program and as musicians and artists.

Discussion

The conditions for students' personal and informal approaches to learning in upper secondary school combines both student thinking and actions as learners. The combination of mental and behavioral elements show a dynamic profile of students as learners that builds on the teachers and the principal's perceptions of student learning as motivated, contingent and situated. The assumption that students are active learners who reflect upon and may actively participate in investigating their own practice (Jurasaite-Harbison & Rex, 2013) is visible through the empiric evidence.

The boundaries between formal and informal learning differs looks slightly different in particular contexts from the three grades of the program. The students have in general good awareness of their informal learning, grounded in their motivation and sense of meaning in the teaching. In the letters, they express that the structure of the program have enabled them to learn and reflect on their performance process and outcomes (Eraut, 2004; Jurasaite-Harbison & Rex, 2013).

In a European perspective, knowledge and skills equalize differences between groups and increase young people's opportunities to choose career and achieve quality of life (Giota, 2014). Without knowledge, categorizations and preconceptions can lead to prejudice and widening gaps between people from different regions or cultures. One way to define equity is people's right to education. As a concept, democracy is about equal worth and rights for individuals to influence their lives. Bauman (2002) argues that the future of democracy depends on its ability to enthuse and engage young people in dialogues on important social issues.

In many European school systems seeking for good solutions to improve the quality of education, there is strong confidence ahead research, analysis and reports illustrating different school systems and their elements, providing recommendation for tendencies in planned transformation. A widespread perception is that the quality of an education system is not primarily determined by structural reforms of school systems but by the quality of teachers' preparation to perform their profession. Initial training and the way teachers upgrade their knowledge and develop skills during teaching practice will have an essential impact on teachers' performance. A challenge for every school is to develop the activities of teaching and learning from traditional ways of mediating knowledge, to a strong emphasis on student's inclinations and abilities to learn. In these processes, the students will acquire strategies for their studies and professional life, through basic skills and competences. Student active work forms and social training demands the teacher's flexibility and ability to handle conflicts. The teaching profession extends from a mediator of knowledge, into a catalyst of the knowledge society (Hargreaves, 2004). Students' and teachers ability to acquire new understanding and insight into society's roles and guidelines is not obvious. Common accepted opinions are neither obviously generalizable nor automatically transferable to every context. Different issues require different approaches to formulate acceptable answers and contribute to the student's willingness to learn something new (Lazarova, Sträng, Jensen, & Sørmo, 2016).

Apart from focusing on teachers' professional development consisting in the improvement of teachers' individual qualifications, it is however important that learning conditions is put into the context of needs related to work and development of individual schools as organizations. This requires activities, which guarantee all school actors (students, teachers, school leaders) sufficient conditions for appropriate participation. This optimization must be simultaneously in providing the basic 21st century skills for lifelong learning; digital skills, foreign languages, technological culture, entrepreneurship and social competence, as well as structural, ideological and co-operative aspects of the school's ability in teaching and learning.

An evidence-based investigation of students' perceptions of learning is not merely about whether or not to apply standards of mastery knowledge and better learning in the 21st century. The results and findings of this study are just inscriptions or cultural theses (Popkewitz, 2006) about who individual students are and should like to be in adult life.

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