

EDUCATING FOR THE FUTURE: HOW TO INTEGRATE FUTURES LITERACY SKILLS INTO SECONDARY EDUCATION

Laura Pouru, Markku Wilenius

Finland Futures Research Centre, University of Turku, Korkeavuorenkatu 25 A 2, 00130 Helsinki, Finland

firstname.lastname@utu.fi

Abstract

The 21st century world is becoming increasingly complex and uncertain. As the pace of social, technological and political changes is constantly accelerating, it is increasingly important for today's young people to be able to learn from the future and gain individual navigation skills that are needed to keep up with the pace of the surrounding world. In this paper we introduce school-fit framework for futures literacy and introduce how futures education could be used in secondary schools to enhance individual futures literacy. Individual futures literacy, in our presentation, refers to a person's capacity to encounter uncertain futures and consists of processes of cognitive, emotional and active level.

Empirically, we are focusing our examination on Finland, as the country has a long tradition of being a global forerunner in the fields of futures research and education. Cross-disciplinary approach has been integrated in the national preliminary and secondary curricula for years and in the recent curriculum reform it has been complemented with the approach of phenomenon-based education. This approach aims at removing disciplinary borders and bringing real-life phenomena into schools as study objects. In the paper we provide some ideas of how futures education and phenomenon-based education can be combined for the purpose of enhancing young people's individual futures capacity.

The background of our presentation is based on previous research in the fields of futures research and futures education, and recent experience of a Finnish initiative that is taking futures education to upper secondary schools. The initiative is done together with UNESCO as Markku Wilenius is holding the UNESCO Chair in Learning Society and Futures of Education.

Keywords: learning, education, futures literacy, futures education

Introduction: Making futures literacy tangible to teachers

Concept of *futures literacy* refers to an individual's capability to use the future in the present (Miller 2007). It tackles the problem that future is often used with a narrow planning-oriented focus instead of utilizing the full individual capacity to imagine alternative futures and use the future to create novel futures, or act toward desirable futures. The future is often also used in vague, implicit ways, such as (Gough 1990; Hicks 2008):

- **Tacit, silent futures:** The future is never directly addressed but expected to unfold on its own. Expectations about the future might exist but they are never discussed or brought out into open.
- **Rhetorical, token futures:** The future is addressed through stereotypes and clichés, but these have very little explicit or true meaning. The future might be used as grounds for changes that rise from other motives.

- **Taken-for-granted futures:** The future is addressed as if there existed no alternatives. The future is often just colonized with familiar thought patterns from the past.

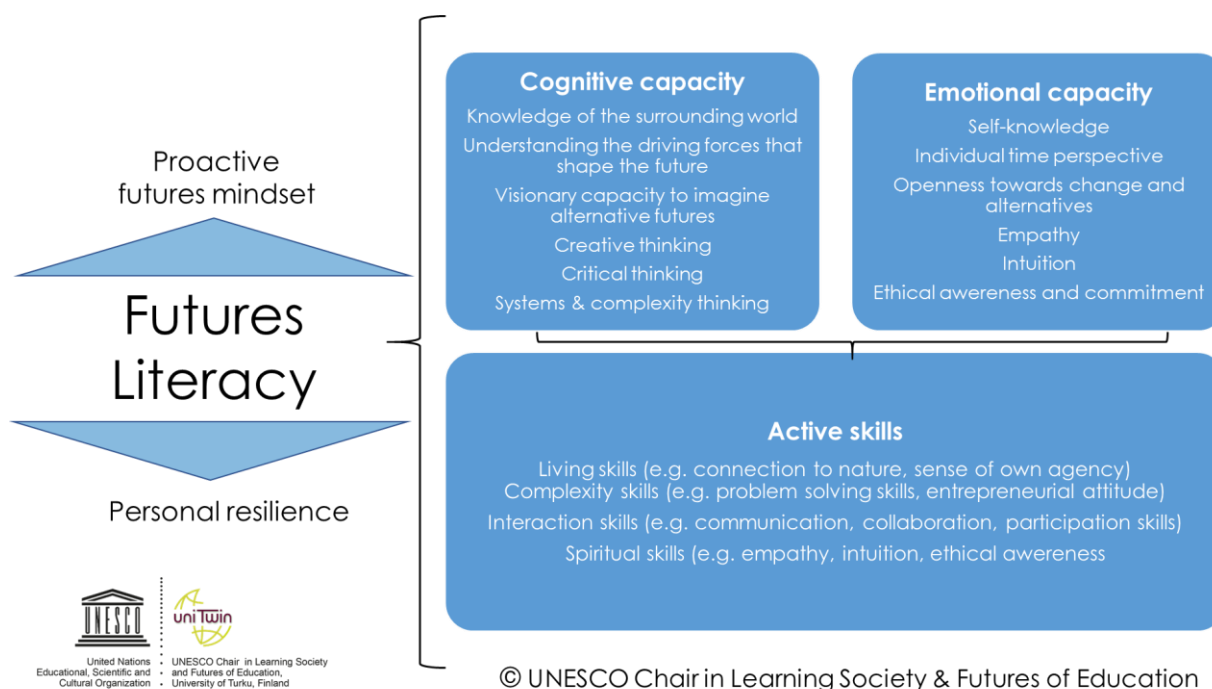
In order to be able to use future more creatively and critically one must be aware of her own anticipatory assumptions (thought patterns that affect individual's ideas regarding why and how to imagine the future) and how these assumptions have an effect on her present-day perceptions and behavior (Miller 2018a, 2-6). Becoming futures literate means you have the capacity to identify, design, target and deploy anticipatory assumptions (Miller 2018b, 24). A futures literate person can answer the question: "What is the future and how do I use it?" (Miller 2018b, 6).

To be precise, the future does not exist, as we always live in the present moment. However, it can be argued that the future is continuously instrumentalized by actors in the present as anticipation. (Miller, Poli, Rossel 2018, 54-55.) It can be stated that reality is a continuous interplay of past, present and future (Poli 2017). Wendell Bell (2002) describes the multiple ways that the future influences decision-making in the present through:

- *Images and ideas* that we have about the future
- *Beliefs about what is possible* in the present and in the future
- *Beliefs about what is probable* in the given circumstances
- Capabilities to evaluate what kinds of futures are *desirable*

Through enhancing one's individual *futures literacy*, a person learns to use the future more consciously. According to Miller (2018a, 4; 6) futures literacy is a capacity that can be trained and a skill that can be revealed and obtained through a learning process.

There have been several initiatives to integrate futures literacy into school curricula throughout the world during the last decades. The previous research on integrating futures education in schools shows that a common mistake is to not offer enough support for teachers in facilitating futures thinking in the classroom (Bateman 2012; Paynter & Bruce 2014). Therefore we decided that in order to make the concept of futures literacy easily adaptable to teachers and schools, we needed to create a tangible framework that could be utilized to conceptualize futures literacy on practical level. In order to do this we built a framework that divides futures literacy into cognitive, emotional and active levels that can be targeted in school education. The elements that the framework consists of are collected through literature review on previous research on futures literacy, futures education and futures consciousness (e.g. Halinen & Järvinen 2007; Mikkonen 2000; Haapala 2002; Jasman & McIlveen 2011; Gidley & Hampson 2005, Ahvenharju et al. 2018) and on our previous research on the future of working life (e.g. Kurki & Wilenius 2016, Wilenius 2017)



The cognitive level focuses on individual knowledge capacity building in understanding the key features of future. This level builds on elements of knowledge of the surrounding world and understanding of the basics of futures thinking, e.g. the driving forces that shape the future and the existence of alternative futures. We need to stretch individual's capacity to understand the impact of key megatrends, such as globalization and demographic change. Moreover, we need to provide tools to perceive reality through complex systems thinking. This means, with any given topic, that we emphasize the connections and feedback loops. Critical thinking capacity helps us to be more reflective on mental models used in our societies, thus leading to a more conscious ways of assessing for example politics. Developing creativity enable us some problem solving skills while on the other hand it provides tools to explore alternative futures.

The emotional level focuses on capacity building in understanding oneself and the emotions, values and attitudes that shape one's personal relationship towards future. The focus on emotional level is to recognize that futures literacy is not only based on factual knowledge but also utilizing our intuition and recognizing emotions about future play a key role in developing futures literacy and particularly in building positive trust in the future. Also self-reflection such as learning to understand own values, time perspectives etc. are essential in developing futures literacy skills.

The active level brings together the two previous levels and focuses on capacity building in the practical skills that help individual to take action towards building the preferred future. In the complex world it is time that we shift the focus of attention from fulfilling our individual basic needs towards developing skills of active global citizenship which aim at being more active change-makers in the society. Four set of skills are particularly needed here: living skills, complexity skills, interaction skills and spiritual skills.

First, we need something which we call *living skills*. These are skills that relate ourselves to our physical environment: how do we build and develop our individual relationship to the

surrounding natural and built environment. Urban life tends to dissociate ourselves from nature. When we lose that connection, we may also lose the understanding of the man-nature-relationship and become for example careless about our ecological footprint or careless about our eating habits. Developing living skills help us to keep connected to the biosphere and give us the future-orientation our planet desperately needs.

The second set of skills we call *complexity skills*. They refer to almost inevitable drive of our societies to grow more complicated over time. They are types of skills that enable us to build resiliency on individual level: how to manage uncertainties and complex decision-making situations (See Casti et. al, 2011). Moreover, building complexity skills enable us to become transformative, to find our way to make impact in the world.

The third set of skills are *interaction skills*. Increasingly, we are connected in our everyday life on various networks and teams in which communication and collaboration skills are needed. In the future, social skills are needed even much more. We need to be able to put ourselves to someone else's position to create empathy and find common solutions.

Finally, we need *spiritual skills* which here means going beyond our own immediate needs and focussing on helping others. It is countering the individualization of the modern societies and going beyond Maslow's scheme on self-actualization (Beck & Beck-Gernsheim 2002).

Methodological approach: Four levels of introducing educational change

In our study we are using the methodology of social science research: we have built the introduced theoretical framework to hypothesize how education of futures literacy skills in the upper secondary schools could be taught and designed. This hypothesis and methodology are then tested in the partner schools (case studies) and on the basis of received feedback the framework is developed further. The overall target is that the developed framework could be operationalized as raw model to run futures literacy exercises in any kind of upper secondary school context.

We are currently focusing our empirical examination in Finland. There have been earlier project-based initiatives of integrating futures education into Finnish schools since 1990s (e.g. Remes & Rubin 1996; Mikkola & Heikkilä 2002). The results and student feedback from these initiatives have been positive, but despite of that the integration of futures approach into the school system has not taken significant steps. At Finland Futures Research Centre there has also been several research and development projects focusing on future-oriented career counselling (e.g. UTUA, OSATA, Get a life). In our project we are building on top of these previous experiences.

In integrating futures literacy into upper secondary education we are following a four-level framework of creating educational change introduced by Salminen (2018). According to the framework educational change must be addressed in four levels: rhetorical level, institutional level, teacher level and student level. Our main emphasis is on teacher and student levels, but we have also taken action on rhetorical and institutional levels.

On rhetorical level we have brought the concepts of futures literacy and futures teaching out public through campaigning in internet (media interviews, blog posts, social media), presenting the concepts at key educational fairs and by launching a collaborative "national futures literacy day" campaign for schools together with some key actors in the Finnish educational field.

On institutional level we have been actively involved in the current on-going upper secondary school reform and have an active dialogue with the Finnish educational administration.

On teacher-level we have currently four pilot schools where we have been offering teachers support and coaching to facilitate futures thinking in the classroom. We are also working on compiling a comprehensive handbook for futures teaching for secondary school teacher. We are also working on strengthening the FFRC capacity to offer support to teachers interested in integrating futures perspective in their teaching.

On student level, we have taken a non-formal approach to futures education by developing a mobile course on futures literacy in collaboration with a company Funzi that is specialized in mobile learning. This course can be accessed through individuals even if they are not formally in any educational institute.

Results, discussion and implications

Our empirical context is built on the foundations of Finnish schools system that provides the teachers with high level of independency to decide what and how they educate. There has also recently been more emphasis put on cross-disciplinary and phenomenon-based learning in the Finnish schools and these will be emphasized even more after the on-going upper secondary school reform will be implemented.

At the two of our partner schools two cross-disciplinary futures thinking courses have been run during the spring semester 2018. The courses have been designed independently by cross-disciplinary teacher teams in both schools and future is studied as a multidisciplinary phenomenon. In addition to the multidisciplinary approach there are other alternatives to integrate futures perspective into upper secondary education. One option is subject-specific futures teaching, as the national curriculum guidelines for upper secondary schools contain multiple components where elements of futures literacy can be integrated. For example subject-specific contribution to sustainable future is mentioned as one of the goals in all the natural sciences; and all languages include contemplation of future of the language; future is also mentioned in history & social science and life philosophy curricula. Simple futures thinking exercises could be integrated into these.

Moreover, the importance of personal study and career planning is currently gaining more emphasis in the upper secondary schools. Therefore particularly the future-oriented career counselling has a lot of potential to integrate elements of futures literacy.

Conclusions

Our initiative of integrating futures literacy into upper secondary education is still very much in the beginning. However, the reception that our work on all the four levels - rhetorical, institutional, teacher and student levels – has gotten has been very positive. The concept and idea of futures literacy has gained a lot of discussion and social media shares and also actors outside schools have wanted to adopt their own “futures literacy day”. The feedback we got from the teachers and students of the first pilot school was highly positive: students felt that they learned many new perspectives and teachers were content with the course and are planning to integrate it as permanent part of the curriculum.

We believe that these developments together with the increasing collective acceptance of the rapid phase of social, technological and political changes have made the school ground more fertile than ever before for more permanent adoption of futures literacy perspective in education.

References

- Ahvenharju, Sanna – Minkkinen, Matti – Lalot, Fanny (2018) The Five Dimensions of Futures Consciousness. *Futures*. Upcoming.
- Bateman, Debra (2012) Transforming teachers' temporalities: Futures in an Australian classroom. *Futures* 44, 14-23.
- Beck, Ulrich & Beck-Gernsheim Elizabeth (2002). *Individualization: Institutionalized individualism and its social and political consequences*. Sage, London.
- Bell, Wendell (2002) Foreword. In: *Lessons for the future: the missing dimension in education* (eds. Hicks, David), xii-xiii. Routledge-Falmer, London.
- Casti, John - Ilmola, Leena - Rouvinen, Petri - Wilenius Markku (2011). Extreme Events. *Taloustieto*, Helsinki
- Gidley, Jennifer M. & Hampson, Gary P. (2005) The evolution of futures in school education. *Futures* 37, 255-271.
- Gough, Noel (1990) Futures in Australian education—tacit, token and taken for granted. *Futures*, Vol. 22 (3), 298-310.
- Haapala, Anu (2002) Tulevaisuuskasvatus. Opetus 2000-series. WS Bookwell Ab. Juva.
- Halinen, I. - Järvinen, R. (toim.) (2007) Tulevaisuuskasvatus - passi tulevaisuuteen. Opetushallitus. <http://www.oph.fi/download/46860_net tulevaisuuskasvatus2007.pdf>, retrieved 10.7.2017.
- Hicks, David (2008) A Futures Perspective – Lessons from the School Room. In: *Alternative educational futures: pedagogies for emergent worlds* (eds. Bussey, Marcus, Inayatullah, Sohail & Milojevic, Ivana). Sense Publishers, Rotterdam. 75-89.
- Jasman, Anne – McIlveen, Peter (2011) Educating for the future and complexity. *On the Horizon*, Vol 19 (2), 118-126.
- Kurki, Sofi – Wilenius, Markku (2016) Trust makes this organisation unique. Looking at the future of work through two human-centric organisations. *European Journal of Futures Research*, Vol. 4 (23).
- Mikkonen, Anu (2002) *Nuorten tulevaisuuskuvat ja tulevaisuuskasvatus*. Publications in Education No: 57. University of Joensuu. University press, Joensuu.
- Miller, Riel (2018a) Futures Literacy: Transforming the future. In: Miller, Riel (ed.) *Transforming the Future: Anticipation in the 21st Century*, 1-14. Routledge. Forthcoming.
- Miller, Riel (2018b) Sensing and Making-Sense of Futures Literacy: Towards a Futures Literacy Framework (FLF). In: Miller, Riel (ed.) *Transforming the Future: Anticipation in the 21st Century*, 15-47. Routledge. Forthcoming.
- Miller, Riel (2007) Futures Literacy. A Hybrid Strategic Scenario Method. *Futures*, Vol. 39(4), 341-362.
- Miller, Riel - Poli, Roberto - Rossel, Pierre (2018) The Discipline of Anticipation: Foundations for Futures Literacy In: Miller, Riel (ed.) *Transforming the Future: Anticipation in the 21st Century*, 48-60. Routledge. Forthcoming.
- Paynter, Mark & Bruce, Neville (2014) A futures orientation in the Australian Curriculum: current levels of teacher interest, activity and support in Western Australia. *Australian Educational Research* 41, 73-87.
- Poli, Roberto (2017) Opening presentation. Anticipation conference. 8.11.2017. London.
- Remes, Pirkko & Rubin, Anita (1996) *Tulevaisuutta etsimässä – Tulevaisuusteema kouluopetuksessa*. Opetushallitus. Helsinki,
- Salminen, Jari (2018) Sustainable Well-being: a Challenge for a Public Sector Institution. In: *Sustainability, Human Well-being and The Future of Education*. Upcoming.
- Wilenius, Markku (2017) *Patterns of the Future: Understanding the Next Wave of Global Change*. World Scientific, London.