

ANETA ROGALSKA-MARASIŃSKA

ORCID 0000-0003-4899-5441

*Uniwersytet Łódzki*

## REIMAGINING EDUCATION TOWARDS SUSTAINABILITY. “PROJECT X” – AN INNOVATIVE LEARNING STRATEGY FROM POLAND

ABSTRACT. Rogalska-Marasińska Aneta, *Reimagining Education Towards Sustainability. “Project X” – an Innovative Learning Strategy from Poland* [Zmiana podejścia do edukacji na rzecz zrównoważonego rozwoju. “Projekt X” – innowacyjna strategia nauczania z Polski]. *Studia Edukacyjne* no. 66, 2022, Poznań 2022, pp. 17-34. Adam Mickiewicz University Press. ISSN 1233-6688. DOI: 10.14746/se.2022.66.2

The paper presents arguments on profound and diverse student-teacher education concentrated on sustainable development as a rational way to combat Anthropocene damage and destruction. It means coping with destructive ecological changes and, more widely, with social deformations that revised educational approaches and paradigms may heal. They refer to the concept of reimagination in education. Thus, there is a considerable need to work out some valid, understandable and socially accepted teaching-learning pedagogies that would make the process of student-teacher education comply with contemporary and future expectations and challenges.

Making the idea of “Think globally, act locally” practically achievable, present and future teachers should learn to perceive each school/academic topic as a multifaceted issue, referring to the four pillars of sustainable education. It entails using some new concepts of professional development, like deep learning or experiential learning, along with the awareness of the future of education. A new social contract for education considers the circular process of human development and ecological re-growth, which needs to introduce truly “holistic strategies”. They refer to six global competencies (Character, Citizenship, Collaboration, Communication, Creativity, and Critical Thinking) and five principles of student-teacher growth (Combination of pedagogies, Connoisseurship of expert teachers and learning communities, Content inherent in all teaching and learning, The reach of context, and Making change happen) as well as to some earlier sustainability transformation concepts included in sustainable development documents from previous decades.

While the conviction of teachers’ undeniable role in building a more balanced life is constantly increasing, processes of student-teacher education for sustainability are too slow. They have to accelerate and receive priority. Such approaches need to rethink course curricula and syllabi and “make” teachers assume a new and varied perspective on planning, implementation and assessment.

One of them is the eponymous “Project X”, which refers to the concept of Project Y suggested in some UNESCO teacher manuals and first mentioned during DESD. It enlarges the three-dimension perspective by adding the cultural pillar. The issue of perceiving a teaching-learning problem simultaneously from four perspectives (natural, cultural, social, and economic) enhances the range of

possible questions and interpretations, evokes deeper individual reflection, and refers to students' life experiences and expectations.

Planning such a highly complex and complementary teaching-learning strategy motivates students (present-day and prospective teachers) to engage them in learning and makes the work more intriguing and challenging. The presentation of a sample of the "Project X" realisation as an example of an innovative learning strategy proves education's strength and creative possibilities for sustainable development in teacher learning as constructive, beneficial and fruitful pedagogical approaches.

**Key words:** pre service and in-service teacher training, teaching-learning curriculum, deep learning, experiential learning, futures of education, ESD, innovative learning strategy

## Introduction

Recent dynamic, extreme and often unpredictable changes are perceived as irreparable losses and hard-to-rebuild harms. Those modifications occur in all core human environments of existence: natural, cultural, social and economic ones. Paul Crutzen and Eugene F. Stoermer called this the Anthropocene epoch,<sup>1</sup> while Jason W. Moore<sup>2</sup> perceived its reasons in capitalocene practices. We – humanity – are facing the oncoming catastrophe.<sup>3</sup>

Apart from the ones who are the authors/source of such multi-realm destruction and want to continue the process, others have already started acting. Now, their role is to inflame the shared power to modify contemporary routines and life-work patterns for a better and reimagined life as a common good. There is a plethora of examples of how people struggle with unsustainable practices in their everyday activities, collective measures and more planned undertakings, like sustainability projects in the education realm.<sup>4</sup>

Yet, some of us stay unconscious, floating on the waves of the consumeristic paradigm of existence. That part of global inhabitants is cognitively "static" and unaware of the possible end. Others act without a sense of responsibility. They may be called conscious conformists who accept the sequence of destructive decisions. Believing in the constancy of the (neo)liberal order, they reject the idea of changing the capitalistic mode of profit competition. There is also a growing group of representatives who try – with different results – to undertake the challenge to stop, make weaker or in some way harness

<sup>1</sup> P.J. Crutzen, E.F. Stoermer, *The 'Anthropocene' 2000*, [in:] *The Future of Nature*, eds. L. Robin, S. Sörlin, P. Warde, New Haven, USA 2013; S. Benner, G. Lax, P.J. Crutzen, *Paul J. Crutzen and the Anthropocene: A New Epoch in Earth's History*, Cham, Switzerland AG 2021.

<sup>2</sup> J.W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*, London 2015.

<sup>3</sup> J. Hickel, *Less Is More: How Degrowth Will Save the World*, London 2021.

<sup>4</sup> A. Paniagua, D. Instance, *Teachers as Designers of Learning Environments: The Importance of Innovative Pedagogies*, Educational Research and Innovation, OECD Publishing, Paris 2018, <http://dx.doi.org/10.1787/9789264085374-en>; UNESCO, 2019.

the global peril. Some advocate the “green economy” as a fundamental and realistic change. Others are more determined to take decisive and ultimate steps and measures to stop the extinction. These activists propose opposite solutions to previous ones but continue the future’s dualistic, polarized and dialectical creation despite that.

For this reason, a new opening is needed. Humanists and educators should promote a different vision of life for the current and subsequent generations. That should be a holistic, balanced, and mature concept for individual and social creation.

Now, to that general and long-lasting tendencies and practices, we should add at least the two overwhelming global “cases” / world events: the Covid-19 pandemic and the war in Ukraine (from Feb. 24, 2022). Although the world’s inhabitants have been so experienced, their consciousness about values, priorities and routine practices stays somewhat the same. Despite clear argumentation and hard evidence, polarisation of attitudes, ideologization of life, and utilitarian and cost-effectiveness practices dominate. Unfortunately, dialogue, empathy and long-term aid without expecting immediate and profitable benefits are still performed more in declarations than in actions.

Despite constantly dominating profit-thinking and money-yielding where corporations and individuals scramble to maximize profits, the time for new ideas and practice expectations comes. As usual, societies turn their heads towards education. Its relevance is undisputed. We need time and adequately prepared teachers to devise new pedagogical solutions and root them in a “fresh” educational background, ideas and paradigms. Thus the main question refers to the issue of pre-service and in-service teacher education.

The issue of sustainability seems to be the perfect match, as it, by definition, brings balance and harmony. It is rational to look for solutions that offer a real chance to be implemented, referring to evolution processes, not revolutionary turns and twists that cause calamities. As Jennifer M. Gidley<sup>5</sup> says, consciousness and knowledge are evolving (2013), so thinking about teachers’ preparation and development should also rationally anticipate adequate training. Of course, the idea of the current evolution in education must be far from a linear process of change. It is more about looping or - as a hermeneut would say - pursuing the spiral of educational and life experiences that give each human the possibility of holistic growth.

---

<sup>5</sup> J.M. Gidley, *Futures of Education for Rapid Global-Societal Change*, [in:] *There’s a Future: Visions for a Better World*, Madrid 2012, pp. 395-419.

## **Futures of education – concepts of transforming education towards “ecological” teaching-learning models**

The word “futures” takes us to the economic realm. It refers to the concrete situation of a financial contract between two parties to buy or sell an asset at a predetermined future and price (regardless of the current market price and the expiration date). If we embed that idea in the education context, some essential questions come to mind: who are the seller and the buyer, what is the core object of purchase, what is its price and are there any expiration dates? In other words, from an educational perspective, the first and most emerging issue to start solving the abovementioned puzzle of questions is to define, describe, and explain our understanding of “futures” as a social contract for education. According to the UNESCO report, “Reimagining our Futures Together. A new social contract for education” (2021) and the Statement from the International Commission on the Futures of Education (2022), all of us - inhabitants of the Earth - should be interested in that profitable, though finally not monetary, exchange. Thus, a new social contract for education will require difficult and complex changes in power relations between states, social movements, citizen groups, professional associations, businesses and other actors (2022, p. 1). Thereby, broad social mobilization is needed to undertake the transformation task, altering or even revolutionizing our current and preceding ways of thinking, living, assessing and evaluating “objects” around us.

Common well-being (of humans and nature) must become the object of our care, fostering and treasure. Just and sustainable well-being is priceless, so incomparable with anything else. It should not be reserved for a tiny group of the richest anymore. But as one may foresee, it becomes the object of malicious jealousy and objection. Thus the task of common dissemination of well-being needs constant activity, attention and cultivation; in other words - constant engagement. From a pedagogical perspective, it means adding motivation, a sense of purpose for teaching-learning activity and endeavour, and the need to work in a safe environment and not feel fear in submitting one’s solutions or ideas.

Presenting a broad educational standpoint, acting for common well-being opts to rethink critical issues, such as sustainability; knowledge; learning; teachers and teaching; work, skills, and competencies; citizenship; democracy and social inclusion; public education; and higher education, research, and innovation (Reimagining our Futures Together, 2021, p. viii). The collective (teacher-student-context) framing of the purposes of new education enables us to look at it as a more profound, complex, and less obvious challenge. Deep and culturally immersed propositions based on public dialogue and inclusive

participation give the hope to work out and achieve inspiring and sustainable solutions. It entails the reflection on five directions of change:

1. Make educational systems places of equal opportunity and shared abundance by advancing inclusion through changes to educational cultures and practices that reduce competition and selection.

2. Foster curricula focused more on connections than categories by supporting interdisciplinary, intercultural, and ecological approaches in and outside formal education.

3. Support teachers to create transformative education by investing in teaching that builds cooperation and solidarity.

4. Ensure that the digital connects us to each other and to the world by building open-access content, public platforms, and committing to democratic, participatory governance.

5. Strengthen education as a global common good by ensuring more equitable cooperation within and across countries (UNESCO, 2022).

Making the presented deliberations closer to the eponymous learning approach, we need to concentrate on some aspects of the abovementioned issues analyzed from a teacher's perspective. Thus the core direction is the one in the middle of the list.

It means that in planning profound educational changes so deep that no one even imagined them earlier, not a single person of policymakers and other responsible agents of change should forget teachers' role, influence, and importance. Teachers' impact on building or rebuilding education to heal the wounds of Anthropocene and capitalocene (which uphold the absolute conviction of capital and growth domination, uninterrupted and commonly applicable "growthism",<sup>6</sup> and the right and rationale to short-term profits), is fundamental.

Teachers as designers of learning environments - understood not only as 3-dimension indoor and outdoor spaces but also as the realms of interference of ideas, dialogue, collaborations, and open-minded intercultural exchange - must be prepared for their mission. It means pre-service and in-service teaching should be planned and conducted with exceptional care, responsibility, and a clear vision of a shared future. The importance of implementing innovative pedagogies ought to be accompanied by the development of a teacher's sense of purpose for such transition and, as a consequence, teachers' ability to distinguish the "surface level" of educational practice (the use of specific methods and classroom organization) and the "deep level" of it (quality teacher-student interactions around meaningful content).<sup>7</sup> The distinction un-

---

<sup>6</sup> J. Hickel, *Less Is More*.

<sup>7</sup> A. Paniagua, D. Instance, *Teachers as Designers of Learning Environments*.

derlines the new idea of understanding and “evaluating” outcomes’ effectiveness. Shifting the emphasis from effect measuring to educating a broadly and profoundly thinking and skilfully acting learner entirely changes the idea of teaching-learning interconnectedness.

The deep-learning paradigm comes to mind, where the central concept refers to the “connected autonomy” of all the new/future education participants. The crucial four driver pairs representing two paradigms (a human paradigm and a “bloodless”/mechanical paradigm) show the direction of awaited changes. The pairs of drivers are Well-being and Learning vs Academics Obsession, Social Intelligence vs Machine Intelligence, Equality Investments vs Austerity, and Systemness vs Fragmentation (Fullan, 2021). The reciprocal relation between both paradigms and educational players may bring various effects. Looking for positives, the reference to these concepts would depend on each other, stimulate for best solutions, and even create synergizing outcomes. It is all because, as lucidly, Gidley convinces, “In the postindustrial twenty-first century, education needs to be primarily concerned with developing the minds, hearts and souls of young people, to live in an increasingly complex and uncertain world.”<sup>8</sup>

To become a mentor of holistic student learning, in other words - an activator of learning, a teacher’s vocational preparation and development must be inquiry-focused. It means they should address authentic professional problems emerging from life challenges and embrace local and global expectations. Broad issues need broad approaches. Thus, when discussing the juxtaposition between general principles and specific teaching-learning methods and technics, there is a clear need to look for an optimal balance between theory and practice.

While imagining education from scratch, clusters (teaching-learning strategies) of pedagogical approaches come to mind. Accordingly to learning content, student priorities, teachers and learners preferred modes of working and expected (at least to some extent) outcomes, we can point to some most desired approaches. They are: blended learning, gamification, computational thinking, experiential learning, embodied learning, multiliteracies and discussion-based teaching.<sup>9</sup>

A combination of pedagogies is especially fruitful while referring to experiential learning. Such type of learning engages active experience, inquiry and reflection. Speaking more precisely, it mixes content and process, reduces guidance, promotes engagement, enables connections between learners and

---

<sup>8</sup> J.M. Gidley, *Futures of Education for Rapid Global-Societal Change*, p. 396.

<sup>9</sup> A. Paniagua, D. Instance, *Teachers as Designers of Learning Environments*, p. 25.



the wider environment, and generates insight from experience.<sup>10</sup> The pivotal role of such a bundle of activities concentrates, i.a., on the growth of inquiry-learning, service-learning, or outdoor learning. Therefore experiential learning builds platforms for profound experiences and encourages deep and bold reflection. These are clear foundations or pillars of the broader sustainable development concept.

To make the reflection more comprehensive though still concentrating on teaching, it is worth looking closer at the Framework for Shifting Learning Content and Experiences Towards the Needs of the Future.<sup>11</sup> Although one may dispute the assumptions and intentions of the framework's authors' perspective (visible conjunctions between education and economy), the key ideas and their classification are worth analysis. The framework presents eight categories of skills crucial for each individual to build and rebuild the societies they live in. The categories create two sets. One refers to "content", and the second - to "experiences." The "Content" set expects the learner to acquire knowledge and skills about global citizenship, innovation and creativity, technology and interpersonal relations. "Experience" concentrates on developing individual and external abilities, like personalized and self-paced learning, accessible and inclusive learning, problem-based and collaborative learning, and lifelong and student-driven learning.<sup>12</sup>

From the perspective of the desired shift towards futures of education, it is clear that both sets - "content" and "experience" - are reciprocally indispensable. They are complementary and offer a whole to be used on various levels and dimensions - the whole that would react to different, often unpredictable future problems and challenges. Individuals must learn new content to be used later and need to improve their competencies (qualitative and quantitative) thanks to practice, rhetorical and cognitive activity, and experiences. The latter should inspire to broaden the space to think and sparkle new solutions, always perceived in a new context and upcoming or already existing conditions. Deeply, rationally and emotionally undergone experiences are the multileveled source of imagination, good-for-all creativity and positive engagement. That is the circular process of human development and ecological re-growth. I advocate calling it an "**applied imagination**" and opt to disseminate it as **dreams which can materialize** thanks to sustainable approaches.

---

<sup>10</sup> Ibidem, p. 27.

<sup>11</sup> G. Elhoussein, A.L. Till, S. Zahidi, *Schools of the Future: Defining New Models of education for the Fourth Industrial Revolution*, Geneva, Switzerland 2020.

<sup>12</sup> Ibidem.

## Teachers as tireless inspirers of reimagination in education – are they ready for the task?

The abovementioned ambitious expectations and projects need to meet with professionals broadly prepared for new educational and societal/environmental challenges. Through appropriate (however vague it sounds) knowledge and practice, teachers should become representatives of a new sustainable education paradigm targeted toward a just and safe future. They should turn into actual “**engines of progress**”, the progress which should be constant and circular.

Therefore, pre-service and in-service teacher education should be understood as a supreme higher education task apart from research. Teacher students as learners of epochal change should be treated with exceptional attention, including the importance of consciously changing educational context and expectations. The transition of needs and issues occurs parallelly in four core sustainability environments: natural, cultural, social and economic. Despite appalling changes and disastrous tendencies in those realms, still, the future is hopefully unpredictable. From one side, we may refer to the viral acronym VUCA (volatility, uncertainty, complexity, ambiguity) (OECD, 2021) and accept our current conditions, or we may look for solutions that give us hope for humans and the Earth’s survival. In other words, we may concentrate on dominating difficulties and individual/social fragility and impoverishment or use them as impulses and leverage to start searching for constructive ways out or panacea. There are some essential questions that learners – future teachers should thoroughly concentrate on to generate or work out reasonable, valuable, and beneficial solutions.<sup>13</sup> The inquiries understood as five framings of education’s relationship to the future are:

- I. What will education be like in the future?
- II. What sort of education will prepare students for the future?
- III. How can students learn to think reflexively about futures?
- IV. How can education be liberated from the future?
- V. How might education heal the future?<sup>14</sup>

Looking for their senses and meanings along with practical applications, it is worth working with a heuristic that guarantees a complementary and holistic view of the issues and possible solutions. It becomes clear that future and already working teachers need various educational approaches to be prepared for the challenge of coping with the listed problems and shifting them to the school pedagogies. If we refer only to the second and third questions,

<sup>13</sup> K. Facer, *Futures in education: Towards and ethical practice*, UNESCO, Paris 2021, Accessed June 17, 2022. <https://unesdoc.unesco.org/ark:/48223/pf0000375792.locale=en>.

<sup>14</sup> Ibidem, pp. 3-4.



the most straightforward answer may be “**Engage in holistic strategies**”. A holistic strategy includes or accepts different and multifaceted methods and techniques. It refers to deep pedagogy.

The idea of deep learning/pedagogy uses the closed-loop model of the 6 Cs (global competencies). It refers to developing, understanding and using competencies such as Character, Citizenship, Collaboration, Communication, Creativity and Critical Thinking.<sup>15</sup> Such competencies represent the humanistic, not the technical background. They cannot be mechanically verified and scored. On the contrary, they give the chance to immerse in deep, broad, multifaceted, and complex, thus humanistic dimensions of education. Unpredictability and openness to different issues, their’ aspects and solutions, and curiosity about various interpretations concerning cultural, generational or priority contexts make expected teaching a unique “**life adventure**”.

In other words, teachers should learn that instead of being “professionally” aware and prepared to measure the effectiveness of their and their students’ activities, they should follow the “new”/recently “recalled” principles and should perceive their strength in helping students to grow. The looping network of these principles, consisting of five Cs (listed below), presents fundamental expectations toward teachers’ work. These are Combination (of pedagogies), Connoisseurship (of expert teachers and learning communities), Content (inherent in all teaching and learning), (The reach of ) context, and Making change happen.<sup>16</sup> The concept of the five Cs principles and earlier mentioned deep learning (with global competencies), and experiential learning shapes the vocational interpretation of awaited new teachers’ role as mentors who open learners’ eyes and “souls” to other people and Earth’s challenges. It is close to the vision of a sustainability teacher. Now, teacher training and development, just like the economy, is slowing down. We are still ahead of the fundamental change or spectacular transition. The difficulty lies in the long-lasting problem of sustainability transformation.

For the last decades, considerable effort has been undertaken to achieve harmonious solutions in teacher training. As a result of the UN World Conference called the Earth Summit in Rio de Janeiro, “Agenda 21” was announced (UN Sustainable Development, 1992). Chapter 36 of that document, entitled “Promoting Education, Public Awareness and Training”, presents three programme areas that explain expectations and the place of education in sustainable change. The third area, “Promoting training”, deals with the issue of vocational training. It proves that education is one of the essential tools for

---

<sup>15</sup> M. Fullan, G. Scott, *Education PLUS: The world will be led by people you can count on, including you!*, Seattle – Washington 2014; M. Fullan, J. Quinn, J.J. McEachen, *Deep learning: Engage the World, Change the World*, Dallas, USA: CORWIN 2018.

<sup>16</sup> A. Paniagua, D. Instance, *Teachers as Designers of Learning Environments*.

developing unique individual resources. It is also one factor that facilitates the transition from an unbalanced to a sustainable world. Thus school programs and curriculums should concentrate on filling gaps in knowledge and skills in the context of sustainability challenges and helping individuals to find jobs in sectors which expect engagement in SD.

As a consequence of such statements – especially during the time of DESD (Decade of Education for Sustainable Development) (2005-2014) – a lot of teaching-learning materials, teacher manuals and guidebooks were extended with new topics and prepared for educators. The main intention was to ease the work in front of new expectations and to underline the importance of including sustainable issues in the previous subject content. There was also the tendency to solve inter-curriculum problems and use combined methods and teaching-learning strategies to respond to SD challenges.

The issue of implementing SD problems in future teachers' learning became one of the most expected and common educational challenges. We can find them in the Bonn Declaration (UNESCO, 2009). Included recommendations refer to reorienting curriculum and teacher education programmes to integrate ESD into pre-service and in-service programmes. The leading suggestions refer to strategies supporting teachers and tutors to network, cooperate, and sound pedagogical practice ("click here" instead of "read this"), especially in working with large class sizes. The document's authors encourage researchers and mobilize universities to start quests and investigations to estimate global and local sustainability challenges and endeavour on a big scale.

Overall, the time of DESD was a scene of an apparent turn to enhance and adjust some school practices, methods, and learning procedures to new issues. The idea of comprehensive teacher training was also declared. Therefore the DESD was estimated as a time of higher education stepping into the sustainability area; new specialist courses were launched, and some reorientation movements in curriculums were noted. Though the majority of Member States reported some progress in the field of ESD, they pointed to many barriers. Sustainability initiatives and school activities were new and inspiring class propositions, but predominantly, they were treated as an odd variety in a monotonous school routine. SD changes were somewhat incidental and mostly referred to pilot projects than overall modifications. They were mainly realized by individual researchers and practitioners, yielding relatively small data. On the other side, the awareness of reliable, professional research arose as a novel academic problem.

Thus, as commonly stressed, only the systemic transformation in the school-academic realm, strengthened by financial support and policymakers' decisions, would bring profound and predominant change. Such voices

and convictions started to be loudly articulated, so they became present at various international meetings, conferences and congresses. Hence, to accelerate the sustainable shift, participants of the Aichi-Nagoya UNESCO world conference, Japan 2014, proclaimed a new educational document called *Post-2015 GAP – Global Action Programme* (UN, 2015). As a “fresh opening”, the findings proposed reorienting higher education to sustainable development (Tilbury, 2014, p. 1). A year later, attendees of the World Education Forum, Incheon, Korea 2015, took another fundamental step. They launched *Education 2030: Framework for Action* (UNESCO, 2016). Its authors intended to make the SD ideas practical. For that reason, they considered the principle of *Quality Education* (SDG 4) of prime importance. The “quality of education” in the SD context started to be understood as inclusive, equitable, and lifelong learning education, accessible to both genders and all stages of life, presented at all levels of formal, non-formal, and informal education (UN, 2016). Participants of the conference specified five action areas to advance the ESD agenda. The third one refers to the building capacities of educators and trainers. Therefore higher education institutions should provide such type of training that would be adequate in content, forms, and methods for the complexity of SD challenges.<sup>17</sup>

The clear conviction of teachers’ undeniable role is constantly increasing<sup>18</sup> (UNESCO, 2018; UNESCO/Rhodes University, 2020). In ESD Roadmap (UNESCO, 2020), the 3rd Action Area refers to building the capacity of educators. One can find confirmation that educators remain vital actors in learners’ transition to sustainability. If educators are to guide and empower learners, they must be equipped with the knowledge, skills, values and behaviours required for this transition.

The recalled documents show that the concept of ESD with the significant role of every teacher engagement has been thought out and lucidly presented. However, it continuously offers a very general approach and laconic attitude towards the globally shared praxis of student-teacher education. It commonly rests in the area of declarations, not actions, while documents outline the issue, leaving its realization to the future. The question of inflaming the reimagination in education remains open. For this reason, educators are commonly not prepared for the task of ultimate transition.<sup>19</sup> They need to learn it in various ways and approaches.

---

<sup>17</sup> H. Lotz-Sisitka, *UNESCO World Conference on Education for Sustainable Development Conference Report*, Accessed October, 18, 2015. <http://unesdoc.unesco.org/images/0023/002328/232888E.pdf>.

<sup>18</sup> K. Poeck, Van L. Östman, J. Öhman eds., *Sustainable Development Teaching: Ethical and Political Challenges*, London – New York 2019.

<sup>19</sup> T. Ferguson, R. Carmel, L.D. Cook, *Teachers’ perspectives on sustainable development: the implications for education for sustainable development*, *Environmental Education Research*, 2021, 27,

## **Signs of the change. “Project X” as an innovative learning approach**

Teachers and future educators, as the very mentors of change, should be motivated and committed to learning about sustainability issues as much as possible so that they can then address the chosen topic in a way that is appropriate to the age of the students and the nature of their subject/discipline. The approach will undoubtedly be easier and more effective if universities and other training institutions undertake the challenge of preparing a multi-dimensional and interconnected learning offer.

Based on the above assumption and concurrently feeling that there was no more time to lose, I have started (to date) realizing a unique task with my students. I work with the University of Lodz, Poland, students specializing in teaching who represent different faculties and areas of science. Working on the assignment, they must complete an intentionally prepared template showing their creative potential and imaginary abilities, joining “typical” and existing disciplinary content with ESD expectations. The task refers to the assumptions verbalized during DESD and in GAP. It also requires students’ reflection on chosen parts of both contemporary Polish National Curriculum (MEN, 2017; MEN, 2018).

The idea of such an activity (team or individual realization is possible) arose after I became familiar with teacher ESD materials and manuals published by UNESCO (UNESCO, 2012).<sup>20</sup> I came across the “Project Y” exercise. It was presented as a valuable and continuously valid proposal for developing the interconnectedness between a teacher’s school subject and the pillars of sustainable development. The concept behind “Project Y” is to inspire, encourage and even force a teacher to look at the subject content taught so far in a new way, to see it from the perspective of sustainability issues and, if there are gaps, to supplement or revise them. I thought it might be a highly convenient tool in pre-service teacher training for all levels of formal education. The authors of “Project Y” referred to the three pillars of sustainability, i.e. society, economics and the natural environment. Graphically, it builds the letter “Y”, where each arm of the letter corresponds to one pillar. In my proposal, I included the fourth pillar of sustainability, i.e. culture, making a four branches structure. Thus, I have transformed the “Y” into an “X”.

I made some other improvements and enhancements. Since the task expects teachers to reflect on the subject they are teaching, each branch as

9, pp. 1343-1359; M. Rieckmann, *Education for Sustainable Development in Teacher Education. An International Perspective*, [in:] *Environmental Education*, ed. S. Lahiri, Delhi 2019, pp. 33-48.

<sup>20</sup> R. McKeown, *Education for Sustainable Development. Toolkit, Learning and Training Tools No. 1*, UN DESD, Paris 2005-2014, Education for Sustainable Development in Action, UNESCO Education Sector, 2006. <https://unesdoc.unesco.org/ark:/48223/pf0000152453>.

a complex and multi-thread area requires educators' comments. In the initial "Project Y" worksheet, each branch consists of the following categories: knowledge, local proposals, skills, perspectives and values. Furthermore, each category distinguishes two issues (current and future/planned activities). They have the form of unfinished sentences: "In my subject, I am already implementing: ..." and "I would still like to add: ...".<sup>21</sup>

In my proposal, "Project X", I changed the order inside branches. I made the new sequence to correspond better with the Polish culture of education, upbringing and teaching practice. In other words - with Polish, i.e. sustainably local context. I proposed the following chain: knowledge, skills, values/attitudes, local proposals (publications, meetings, activities) and perspectives - possibilities of use in practice. Each category requires an explanation analogous to "Project Y" by completing the same sentences.<sup>22</sup>

My recent "Project X" version of the worksheet is dedicated to PhD students - Polish and international - who study at the University of Lodz, Poland. I have made the following sequence: Knowledge (additionally extra discipline), Skills, Values/attitudes, Local issues and activities (e.g. publications, meetings, activities, initiatives) and Perspectives (possible use in practice). I also rejected the sub-level of unfinished sentences, giving learners more freedom and the possibility to imagine in presenting their interpretations of each element of the four subject areas. Additionally, I have raised the level of PhD student academic teacher training. I have expected the learners to invent "their" hypothetical academic subject (give the course title), a set of three workshops title (that they would run as young academic teachers), and sub-titles of each of the three workshops.

The outcomes of the assignment were positive and encouraging. The main task of going through each of the branches (society, economy, natural environment and culture) and moving like on a storyboard, where all of the board's elements are somehow interconnected, was not a simple activity. Thinking of the principal and partial ideas included in titles and sub-titles, considering the content of each workshop and perceiving it from the SD perspective was very challenging. It forced students to engage the holistic insight and refer to multileveled and multifaceted approaches. Below I present the realization of the "Project X" worksheet (Table 1) done during workshops at the University of Lodz Doctoral School of Social Sciences by one of the PhD students; let us call him John. John represents Legal Sciences at the Faculty of Law and Administration, UL.

---

<sup>21</sup> A. Rogalska-Marasińska, *Edukacja międzykulturowa na rzecz zrównoważonego rozwoju*, Łódź 2017, p. 487.

<sup>22</sup> *Ibidem*, p. 488.

Table 1

“Project X” – Complementary 4 pillar template of the balanced syllabus  
as a realization of ESD expectations

Discipline: Legal Sciences					
Course title: Public International Law					
Set of 3 workshops title: Sources of International Law					
Sub-titles of each of the 3 workshops: 1. Law of Treaties; 2. Customary International Law; 3. General Principles Of Law Recognized By Civilized Nations					
	Knowledge (additionally extra discipline),	Skills	Values/attitudes	Local issues and activities (e.g. publications, meetings, activities, initiatives)	Perspectives (possible use in practice)
Society	knowledge of regulations affecting the scope of human rights	the ability to distinguish genocide from other international criminal offences and to identify the primary authorities responsible for their prosecution	human rights, fighting against human trafficking, prohibition of genocide, prosecution of international crimes, shaping social awareness of the gravest crimes against all humanity	specialists' conferences, raising social awareness even among our family, reading with comprehension specialist debate and court judgments	reading legal acts with understanding, understanding of events taking place around (mainly political as they result from and influence international law)
Economy	knowledge of rules regulating some relations between states and international companies	the ability to identify the differences between international consortia and subjects of international law and the forum where their interests can be represented	awareness of the role and position of transnational companies, the legal framework in which they operate, and their stronger position than some states (CJEU <i>Achmea</i> ?)	commercial law conferences	informed choice of products manufactured by large corporations and their operating practices



Natural environment	knowledge of regulations that protect the environment	the ability to understand the legal nature of environmental law standards (such as the Paris Agreement 2015) and to assess international and national actions in this light	awareness of the emerging difficulties and principles of environmental interpretation	knowledge of the fulfilment of Poland's and the EU's international commitments and of the emerging standards that will also affect our lives as individuals	initiating local actions requiring those in power to respect international obligations
Culture	knowledge of law protecting international cultural heritage	perception of cultural objects as objects that can be protected under international law	awareness of cultural heritage as a nation-building factor that can be directly subject to international protection (case before the International Court of Justice <i>Armenia v. Azerbaijan</i> and <i>Azerbaijan v. Armenia</i> )	meetings with local organizations involved in the protection and promotion of cultural heritage	promoting local culture and commitment to popularizing Ukrainian culture in the face of the current war

Source: Author's content adaptation based on the PhD student's realization of the „Project X” template, 2022.

## Conclusion

After humanity has reached the state of nearly total disaster in all core environments of our existence, the time has come to pose fundamental questions concerning the future of humankind. Issues about futures of education are becoming more and more urgent. They can take the form of the following matters:

1. What do we do now in education that should be continued?
2. What do we do now in education that should be abandoned?
3. What in education needs to be reinvented afresh? (UNESCO, 2019a; UNESCO, 2021)

Analysing economic modifications and cost-purpose tailoring in education influenced by no longer possible to hide (physically or by using euphemistic language to name them) unsustainable and short-profit changes, we ought to seriously think about the answers. Or better: their range and directions.

Future education solutions can not accept only unequivocal, predictable, and finite answers. On the contrary, they should expect several explanations and interpretations depending on different contexts and cultural traditions; thus, they should be open to various approaches and external factors influencing them. To be clearly understood, I do not advocate the idea of a total flow and constantly changing pedagogies. I favour flexibility, attentiveness, awareness, and commitment. The importance of innovative pedagogies, such as those reflecting sustainability issues, lies in developing resilience as a manifestation of self-reliance, self-confidence, a deep need to rediscover meanings and a sense of purpose, and the desire to possess broad perspectives and propose bold interpretations and ambitious solutions. In short, these elements constitute and construct a holistic education. Future - though starting right now - education needs an emotional component too. Education should be an utter life adventure that makes each learner a permanent and wholehearted practitioner and enthusiast. Inflaming imagination and letting it spring is another aspect of desired education. Bold conceptualizations go hand in hand with "applied imagination" and creativity. Thereby such education is not static or boring. On the contrary, it is very motivating and full of energy, excitement and creative joy.

To change the role of educators of each level into "activators of learning", pre-service and in-service training need different methods and techniques, like the presented "Project X" task. The idea in common is to offer them multifaceted approaches and assignments. Experiencing something for oneself makes a person more rational, attentive, empathic and open-minded. Holistic practice as deep learning helps design reasonable and conscious learning experiences for others, developing students' needs and abilities to create new knowledge and use it in real-life problem-solving. Deliberate learning attempts should help students identify their talents, purpose of activities, engagement and passion. A compound of these elements should turn into a framed matrix of human re-growth, giving us the strength to rethink our goals and start rebuilding the dimensions and environments of our lives.

## BIBLIOGRAPHY

- Benner S., Lax G., Crutzen P.J., *Paul J. Crutzen and the Anthropocene: A New Epoch in Earth's History*, Cham: Springer Nature, Switzerland AG 2021.
- Crutzen P.J., Stoermer E.F., *The 'Anthropocene' 2000*, [in:] *The Future of Nature*, eds. L. Robin, S. Sörlin, P. Warde, Yale University Press, New Haven, USA 2013.
- Elhussein G., Till A.L., Zahidi S., *Schools of the Future: Defining New Models of education for the Fourth Industrial Revolution*, World Economic Forum, Geneva, Switzerland 2020.
- Facer K., *Futures in education: Towards and ethical practice*, UNESCO, Paris 2021, Accessed June 17, 2022. <https://unesdoc.unesco.org/ark:/48223/pf0000375792.locale=en>.
- Ferguson T., Carmel R., Cook L.D., *Teachers' perspectives on sustainable development: the implications for education for sustainable development*, *Environmental Education Research*, 2021, 27, 9.
- Fullan M., Scott G., *Education PLUS: The world will be led by people you can count on, including you!*, Collaborative Impact SPC, Seattle - Washington 2014.
- Fullan M., Quinn J., McEachen J.J., *Deep learning: Engage the World, Change the World*, a SAGE Publishing Company, Dallas, USA: CORWIN 2018.
- Gidley J.M., *Futures of Education for Rapid Global-Societal Change*, [in:] *There's a Future: Visions for a Better World*, BBVA, Madrid 2012.
- Hickel J., *Less Is More: How Degrowth Will Save the World*, Windmill Books, London 2021.
- International Commission on the Futures of Education, *Reimagining Our Futures Together: A new social contract for education*, UNESCO, Paris 2021.
- International Commission on the Futures of Education, *Transforming education together for just and sustainable futures*, UNESCO, 2022, Accessed May, 18, 2022. <https://unesdoc.unesco.org/ark:/48223/pf0000381984>.
- Lotz-Sisitka H., *UNESCO World Conference on Education for Sustainable Development Conference Report*, Accessed October, 18, 2015. <http://unesdoc.unesco.org/imagenes/0023/002328/232888E.pdf>.
- McKeown R., *Education for Sustainable Development. Toolkit, Learning and Training Tools No. 1*, UN DESD, Paris 2005-2014, Education for Sustainable Development in Action, UNESCO Education Sector, 2006. <https://unesdoc.unesco.org/ark:/48223/pf0000152453>.
- MEN, Rozporządzenie Ministra Edukacji Narodowej z 30 stycznia 2018 r. w sprawie podstawy programowej kształcenia ogólnego dla liceum ogólnokształcącego, technikum oraz branżowej szkoły II stopnia, Warszawa 2018, Accessed June 28, 2022; <http://prawo.sejm.gov.pl/isap.nsf/download.xsp/WDU20180000467/O/D20180467.pdf>.
- Moore J.W., *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*, Verso, London 2015.
- OECD, *Building the future of education*, 2021; <https://www.oecd.org/education/future-of-education-brochure.pdf>.
- Paniagua A., Instance D., *Teachers as Designers of Learning Environments: The Importance of Innovative Pedagogies*, Educational Research and Innovation, OECD Publishing, Paris 2018, <http://dx.doi.org/10.1787/9789264085374-en>.
- Poock K., Östman Van L., Öhman J. eds., *Sustainable Development Teaching: Ethical and Political Challenges*, Routledge, London - New York 2019.
- Rieckmann M., *Education for Sustainable Development in Teacher Education. An International Perspective*, [in:] *Environmental Education*, ed. S. Lahiri, Studera Press, Delhi 2019.
- Rogalska-Marasińska A., *Edukacja międzykulturowa na rzecz zrównoważonego rozwoju*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2017.

- UNESCO, *Bonn Declaration*, World Conference on Education for Sustainable Development 2009, Accessed June 12, 2022; <https://unesdoc.unesco.org/ark:/48223/pf0000188799/PDF/188799eng.pdf.multi>.
- UNESCO, *Education for Sustainable Development: A Roadmap*, Paris 2020, Accessed May, 20, 2022; <https://unesdoc.unesco.org/ark:/48223/pf0000374802.locale=en>.
- UNESCO, *Education for Sustainable Development. Sourcebook. Learning & Training Tools No 4-2012*, Paris 2012, Accessed May 3, 2022; <https://unesdoc.unesco.org/ark:/48223/pf0000216383>.
- UNESCO, *Guidebook on Education for Sustainable Development for educators. Effective teaching and learning in teacher education institutions in Africa*, Paris 2018, Accessed May, 18, 2022; [https://www.adeanet.org/en/system/files/resources/guide\\_on\\_esd\\_for\\_educators.pdf](https://www.adeanet.org/en/system/files/resources/guide_on_esd_for_educators.pdf).
- UNESCO/Rhodes University, *Sustainability Starts with teachers: Capacity Building Programme for Teacher Educators on Education for Sustainable Development*, 2020; <https://sustainabilityteachers.org/>.
- UNESCO, *The Initiative*, Futures of Education, 2019; <https://en.unesco.org/futuresofeducation/initiative>.
- UNESCO, *Three Questions to Transform Education*, Futures of Education, 2019; <https://en.unesco.org/futuresofeducation/three-questions>.