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The Austrian ECOLOG-schools programme: History, structure, lessons learned, and impact of a network[1]

Franz Rauch[2] & Günther Pfaffenwimmer[3]

Abstract

This chapter describes networking for education for sustainable development within the Austrian ECOLOG-schools network. It discusses theoretical concepts of Education for Sustainable Development and school development from an Austrian perspective, as well as networks in education in general and the organization of the ECOLOG-network in particular. Furthermore, the international Environment and School Initiatives (ENSI) network is described as an influential stimulus for the development of ECOLOG. Based upon these foundations, the concept and results of evaluation studies of ECOLOG-schools are described and reflected. The impact of ECOLOG on the developments in environmental education/education for sustainable development in Austria is described and reflected. The paper concludes with a summary of the evaluation process and with an outlook for the future development of the network.

Keywords: environmental education, education for sustainable development, networks in education, school development

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Education and Sustainable Development

Current discussions around education for sustainable development (ESD) in Austria focus on the notions of sustainable development, on environmental education (EE), on development education (or global learning or global citizenship education) and international peace as well as civic education, which have sparked debates on the nature of education in general (Rauch & Steiner, 2013). The current international United Nations programs like Sustainable Development Goals (especially goal 4 "for Quality Education") (UNESCO, 2017) and the 2015 UNESCO Global Action Programme on Education for Sustainable Development are in line with the conceptualization of ECOLOG.

As with human rights, sustainable development may be regarded as a regulatory idea (Kant, 1787/1956). Such ideas do not determine an object but serve as heuristic structures for reflection. They give direction to research and learning processes. In terms of sustainability, this implies that the contradictions, dilemmas, and conflicting goals inherent in this vision need to be constantly renegotiated in a process of discourse between participants in each and every concrete situation (Minsch, 2004). This implies a great challenge but also has considerable potential to enhance learning and innovative developments in education (Rauch, 2015). A central goal is the transformation of individuals, organizations, and the society. Learning is transformative "*when the learners, integrate and reinterpret knowledge into their own frames and put it into practice in their own lives. Learning is also one mechanism for changing the society and for transforming the society*" (Reardon, 2010, p. 9).

School Development Through Action Research (AR)

Holtappels and Rolff (2004) describe pedagogical school development as a triad made up of teaching development (Unterrichtsentwicklung), personnel development (PE), and organizational development. They emphasize that in a systems context, each of these ways leads to the others. Essential for a comprehensive understanding of educational work is a supplemental expansion of the intrascholastic system context as shown here through extrascholastic factors (e.g., school-governing entities, school supervisory boards, businesses, universities, cities, and regions).

Engaging in AR can lead to an improvement in current working situations through those involved examining and reflecting on current practices, further developing their own competence for handling work situations (practical theory) and contributing to their knowledge-level expansion (production and dissemination of "local knowledge;" Altrichter & Posch, 2009; Elliott, 1991). Within an AR context, pedagogical school development can be described with the following characteristics (Elliott, 1991):

- Development originates from teachers who seek to innovatively further develop their teaching as an answer to challenges from existing circumstances and practice.

- This pedagogical school development focuses on pedagogical interactions between teachers and students as well as among students themselves. The attempt is made to include students in the planning and execution of the teaching process.

- Development targets a connected process between the further development of pedagogical practice and development of conducive organizational structures and support systems.

- Standards for the development work are also derived from professional pedagogical values, which are embedded in the professional school culture.

Thus, AR does the preliminary work for an essential element of school quality development: the development of a feedback culture, in which reflective dialogues between all parties involved in school life (teachers, students, administration, and parents), belongs to the work and daily culture of the school.

During the 1990s, following the development of Austrian schools' autonomy, a discussion regarding site-specific quality assurance and quality development was launched. The conception of the school program was the center of the development. Education department funded pilot projects, which were undertaken and concomitantly investigated (e.g., Krainz-Dürr, Posch, & Rauch, 2002); however, only a decade later were the resultant findings legally put into place. As of the school year 2014/2015, all schools have been required to prepare a development plan for their institution. They are supported during this process by Education Ministry platforms (Schulqualität Allgemeinbildung or school quality general education – for the general school sector and Qualitäts Initiative Berufsbildung, or career education quality initiatives – for the vocational school system) and offerings from educational universities. A school's quality ultimately presents itself by whether and to what degree students have learning experiences and meet learning outcomes, which allow them to build identity and feelings of self-worth and to develop discipline-specific, interdisciplinary, social, and personal competencies for active participation within the community in both career and private life. The learning and teaching within class and school is the place where these experiences and competencies – supported and guided through the teachers' professional expertise – should be acquired. However, school is not just a "learning space" but also a "living space." In a "living space" class and school, the students have social experiences in a larger group with specific rules. This should serve to satisfy basic human needs (e.g., security and recognition), but also facilitates learning about social relationships, work organization, and democracy, taking on responsibility, reliability, and give-and-take in social contexts.

The learning experiences that students acquire in the area of learning and teaching as well as in the "living space" class and school form the core of school work, which determines school and instructional quality. The individual school works on providing favorable conditions for these core activities. Through PE and further professionalization, teachers work on their competencies for the productive creation of a learning and living space in class and school as well as for their own reflection competency. Leadership and school management contribute to orientation and beneficial conditions for the work of all involved parties. Through the active creation of school partnerships and outside relationships, the school partners should be integrated, the school environment should be informed, and potentials for school support should be identified and cultivated.

However, not everything is dependent upon the internal work at the school; external influences also have an effect on the work of schools and the quality of their outcomes. Many of these influence sources are "far away," quasi outside schools' range of influence (e.g., legal frameworks and overall societal development). With other partners, the school stays in contact or can establish contact with them (e.g., continuing education, community, feeder, and receiver schools); therefore, the school itself has a certain influence whether these are beneficial, obstructive, or neutral conditions for school work (Rauch, Andreitz, & Dulle, 2018).

Theoretical Background of Networks in Education

In the early 1980s, the notion of "networks" became very popular within society as a whole and within the scientific community in particular. Naisbitt (1984) talked about a "megatrend" of transformation within and of hierarchies, arguing that informal networks of small groups become necessary to optimize organizational problem-solving processes, which can no longer be performed by hierarchical structures.

According to Castells' (2000) notion, networks constitute a new social morphology in society, where dominant functions and processes are increasingly organized around networks. New information technologies provide the material basis for its pervasive expansion throughout the entire social structure. Castells (2000) conceptualizes his notion of "network" as a highly dynamic, open system consisting of nodes and flows.

In the wake of these general social trends and this structural transformation, networks in educational contexts have also become increasingly attractive in educational systems. In the 1990s, systemic school modernization processes were launched by policymakers, prompted by the need for reformatory change in the light of the results of international assessments (such as the TIMSS and PISA studies). Having proclaimed "school autonomy" as goal, the central administration in Austria has focused increasingly on contextual steering activities while delegating responsibilities to decentralized units (Fullan, 2007; Posch &

Altrichter, 1993; Rauch & Scherz, 2009). Less bureaucratic steering generates a need for alternative coordination. Intermediate structures (Czerwanski, Hameyer, & Rolff, 2002) such as networks are conceived and expected to fill a structural gap and take over functions traditionally assigned to the hierarchy. Ideally, networks are conceived as an interface and an effective means of pooling competencies and resources (OECD, 2003; Posch, 1995). As intermediate structures, they manage autonomy as well as interdependent structures and processes and also try to explore new paths in learning and cooperation between individuals and institutions (Rauch, 2013).

In this process, authors consider the following aspects paramount:

- mutual intention and goals (Lieberman & Wood, 2003)
- trust orientation (McLaughlin, Black-Hawkins, McIntyre, & Townsend, 2008)
- voluntary participation (Boos, Exner, & Heitger, 2000; McLaughlin et al., 2008)
- principle of exchange (win–win relationship; McCormick, Fox, Carmichael, & Procter, 2011; OECD, 2003)
- steering platform (Dobischat, Düsseldorf, Nuissl, & Stuhldreier, 2006)
- synergy (Schäffter, 2006)
- learning (Czerwanski et al., 2002; O'Hair & Veugelers, 2005)

Per Dalin's (1999) description of how networks function in education is an important theoretical basis, which underlies the formation of regional networks in ECOLOG. Networks in education have an informative function, which becomes visible in a direct exchange of practice and knowledge for teaching and schools, and act as a bridge between practice and knowledge.

Through networking, further opportunities for learning and competence development (professionalization) are encouraged by the members who establish the learning function. Trust is a prerequisite for cooperation within a network. It is the basis for the psychological function of a network, which encourages and strengthens individuals. In the political function of networks, enforceability of educational concerns increases, following the motto "together we achieve more."

The Austrian ECOLOG-Schools Programme and Network

ECOLOG, a key action program and network for the greening of schools and education for sustainability, was developed in 1996 by an Austrian team of teachers working on the international Environment and School Initiatives (ENSI) project (Posch, 1999).

ENSI as stimulus for ECOLOG

In December 1985, the CERI Governing board (CERI is a research department of the OECD Directorate for Education and Skills; see http://www.oecd.org/education/ceri/) accepted the proposal for the ENSI project from Austria. This basic concept, in which the OECD highly esteemed demand for "dynamic qualities," was linked with the promotion of "environmental awareness," which stated that dynamic qualities could best be developed if students are enabled to take constructive initiatives in their proximate environment (Posch, 1990). AR was chosen and has proved to be the method to make dynamic qualities observable, to facilitate reflection and observe their enhancement, through for example, environmental-oriented project teaching.

ENSI was the first project focusing on dynamic qualities and linking them to environmental awareness and EE, which is still an ongoing task in the different member states (Rauch & Pfaffenwimmer, 2018).

In 1986, in Austria, a team of experienced teachers from different regions and different types of schools was chosen and formed to be the ENSI teacher team coordinated by staff at the Ministry of Education and scientifically facilitated by academics from Universities. The teacher team received training in AR to be able to document and publish their innovative work as case studies. The ENSI team has built a bridge between practice, policy, and research for many years until 2017. This team strongly influenced developments in Austria. In the summer 1995, the Minister of Education commissioned the ENSI teacher team to design the ECOLOG-school network, which after a 2-year pilot phase developed into a wider school network. The ECOLOG-school network contributed to the development of pedagogical criteria for "The Austrian Eco-label for Schools and Teacher Training Colleges" (www.umweltzeichen.at), which has been awarded by the government since 2002.

In 1999, Austria joined the Australian-led ENSI project "Learnscapes" (1999–2001) with the involvement of eight Austrian schools. Learnscapes has become a focal topic for the ECOLOG-school network and was also the starting point for the still ongoing collaboration with the Austrian Institute for School and Sport Facilities (ÖISS). One important result of this collaboration is recommendations for the design of school grounds (Mellauner & Clees, 2005).

In 2002, Austria submitted the first proposal for an ENSI-EU-project "School Development through Environmental Education SEED" (2002–2005). The proposal was successful, and Austria coordinated the SEED Project from 2002 through to 2005 (www.ensi.org/projects). The most influential publication is *Quality Criteria for ESD-Schools* (Breiting, Mayer, & Mogensen, 2005), which is translated into many languages. To facilitate understanding and implementation of the Quality Criteria for ESD-Schools, the ENSI

teacher team designed and piloted an in-service seminar for heads and coordinators of ECOLOG schools (Lechner & Rauch, 2014).

Collaborations between schools and their surrounding communities are crucial for real development and change in society. Therefore, the last project of ENSI, CoDeS (School and Community Cooperation for Sustainable Development), focused on this collaboration by gathering 29 experts from 17 countries. The project ran from 2011 to 2014 and was funded by EU Comenius funds (https://www.ensi.org/Projects/Our_Projects/CoDeS/).

Structure of ECOLOG

ECOLOG is based upon an AR approach, which was discussed previously. Schools analyze the ecological, technical, and social conditions of their environment and therefore define objectives, targets, concrete activities, and quality criteria to be implemented and evaluated. Students as well as all the other stakeholders of a school should be involved in a participatory way, and collaboration with authorities, businesses, and other interested parties is encouraged. The measures concern, among others, areas like saving resources (energy, water, etc.), reduction of emissions (i.e., waste and traffic), spatial arrangement (from the classroom to the campus), the culture of learning (communication and organizational structure), health promotion as well as the opening of the school to the community. Overall, over 550 schools with about 15,000 teachers and approximately 110,000 students are currently part of the network. Many others are reached through the website, teacher in-service-training seminars, and newsletters (Rauch & Pfaffenwimmer, 2014).

Given the uncertainty of what constitutes adequate action in complex situations, such as networking and the differences in understanding of conceptions like education and sustainable development, there is a need to reflect on one's actions. This helps to nurture an ability and readiness for the further development of one's actions in response to the outcome of the reflection process. Competent, professional action in complex situations, hence, requires concomitant learning processes as a *sine qua non*. Inversely, professional learning requires the experience of acting in complex practical situations. From these perspectives, professional action and professional learning coincide in one stream of action. As professional learning happens in practical situations, which, in turn, are seen to require reflection and further development, knowledge, and skill development go hand in hand with practical situational development (Altrichter & Posch, 2009). Stern, Townsend, Rauch, and Schuster (2014) have recently offered reflections on good AR. They argue that good AR pursues worthwhile practical purposes, connects theory with praxis, and is responsive and collaborative.

ECOLOG is a national support system with the aim of promoting and integrating an ecological approach into the development of individual schools and attempts are being

made to embed the program in Austria's federal states through regional networks (Rauch & Steiner, 2006). To provide support, a network structure involving ECOLOG regional teams in the nine Austrian provinces has been developed; furthermore, a scientific advisory board has been established. Central support is provided by the Ministry of Education and by the Institute of Instructional and School Development at the Alpen-Adria-University, Klagenfurt. Additional support measures are provided by the FORUM Environmental Education (an NGO) as well as via seminars for heads and coordinators of ECOLOG-schools network, the Education Support Fund for Health Education and Education for Sustainable Development, as well as via the National Environmental Performance Award for Schools and University Colleges of Teacher Education (Rauch & Pfaffenwimmer, 2014).

Evaluation studies of the ECOLOG-schools network

Throughout the past 20 years of the ECOLOG-schools network's existence, a series of evaluations, inquiries, and studies have been produced (Ehgartner, 1999; Heinrich & Mayr, 2005; Knoll & Szalai, 2009; Lechner & Rauch, 2014; Payer, Winkler-Rieder, & Landsteiner, 2000; Rauch & Schrittesser, 2003; Schober-Schlatter, 2002; Thonhauser, Ehgartner, & Sams, 1998).

Based on these evaluations, the Institute of Instructional and School Development at Alpen-Adria-University, Klagenfurt, was commissioned to conduct an evaluation study of those 23 schools that have been part of the ECOLOG program for the past 10 years (Rauch & Dulle, 2012).

The knowledge that teachers gained through their experiences of concrete ecological development processes and its systematic evaluation by way of participatory AR constitutes an invaluable reservoir of practical expertise for everyone involved in the ECOLOG program and everyone interested in ecological school development processes.

Through guideline-based interviews, the Lamnek's (2005) study collected and analyzed evaluations by heads of schools and ECOLOG coordinators of the effects of the ECOLOG program in their schools as well as the experiences the interview partners have had with the program during the past 10 years. The 23 schools that were part of this study came from all nine Austrian states and represent all school types, including primary schools, secondary schools, higher secondary schools, as well as vocational schools and higher vocational schools. At these schools, interviews were conducted with 16 heads and 23 ECOLOG coordinators (a total of 39 interview partners). The emphasis of the questions is related to past successes and positive impacts of the implementation of the program, potential problem areas, and general points of criticism.

These interviews were transcribed and analyzed according to the model of content analysis (Mayring, 2002), and additional materials available at the schools (annual ECOLOG reports, annual school reports, teaching materials, the school website, the ECOLOG website, press releases, and school folders) were integrated in the analysis.

Prior to the final analysis, a brochure was produced containing summaries of all ECOLOG-related activities in the form of illustrated profiles of the 23 schools as well as of their successes and challenges that were faced (Rauch & Dulle, 2011). This brochure and a number of theses, formulated from the preliminary results of the interviews, were presented and put forward for discussion in the context of a workshop with representatives of the schools interviewed and other schools taking part in the ECOLOG program.

In 2016, a study on the nine regional ECOLOG networks was commissioned. Based on interviews with members of the regional teams and selected teachers as well as the analysis of reports of ECOLOG schools and other documents, the goals, the structure, and effects of ECOLOG were examined (Ziener, 2017).

In the following section, lessons learned generated from all of these studies will be presented based on the studies undertaken.

Lessons Learned Based Upon the studies

ECOLOG is a highly demanding program

As a comprehensive concept of school development promoting ESD, which connects teaching and learning processes, school organization, and the school's collaboration with external partners, ECOLOG is a highly demanding program. After nearly 20 years, the relevance of ECOLOG varies greatly between different schools. In some instances, it is "merely one project among many others," while other schools have made it their "number one priority." ECOLOG has been integrated into the day-to-day life of around half of all participating schools, with most of those being primary schools.

The ECOLOG network supports further development

Schools that were able to build up a sustainable ecological school structure had often already had experiences with ecological education and school development before they joined ECOLOG. Building upon those experiences, the ECOLOG network supports further development, for example, through regional exchange of experiences and information, the generating of new ideas, the provision of educational materials, and through financial resources. This support is considered as very helpful. Further opportunities for support are found in the creation of a pool of external lecturers and advisors, the development of

more varied materials depending on different types of schools, as well as a stronger activity in the area of public relations and the provision of material resources.

The ECOLOG network schools face a number of challenges

Supporting the development of a sustainable school culture depends on taking seriously the different interests of stakeholders and on working collaboratively on common aims. Successful ECOLOG network schools have learned to deal with both internal as well as external changes and to embrace diversity.

ECOLOG has effects in numerous areas

The effects of ECOLOG are observed in numerous areas. Among them are changes in teaching methods (e.g., increased project-based learning and social learning), the increased integration of health-related topics as well as ecological and social topics in the teaching, the design and organization of the school building (e.g., the schoolyard and measures of energy optimization), and changes in school life (e.g., healthy foods for pupils and teachers). Participation in ECOLOG improves the image of the school. More empirical evidence is needed to understand better the middle- and long-term effects of ECOLOG especially on students.

ECOLOG depends on dedicated individuals

On the one hand, ECOLOG lives through the particular dedication of individual members of the teaching staff. On the other hand, a culture of mutual collaboration must be established for a sustainable school culture to thrive. This poses challenges for schools. The development of a team culture is crucial for sustainable whole-school development. In one third of the ECOLOG schools, the responsibility still lies strongly in the hands of individual teachers.

ECOLOG helps schools meet their legal reporting requirements

ECOLOG network schools commit themselves to principles of quality development and quality assurance. The production of annual reports in accordance with the concepts inherent in the school's development plan may often, especially in the beginning, cause difficulties. Efforts and benefits need to keep a healthy balance. After some years of experience, schools are often much better to be able to achieve this. At this stage, the annual ECOLOG report is often considered as a helpful tool for reflexion and planning. Thus, ECOLOG is able to make a thematic contribution to the practical realization of legal requirements, such as the establishment of a quality management system as well as of educational standards (especially in the natural sciences).

Ecologization needs to be integrated into school processes and identity

Processes of ecologization at schools are successful in the long term if they are viewed both as dependent on the build-up of experiences and routines as well as on the development of new ideas. ECOLOG offers a variety of thematic links and a support network that enables school-specific and autonomous developments. Every ECOLOG network school can find and develop its own identity.

Impact of the ECOLOG-schools program in Austria

An early impact of ECOLOG was the implementation of the *National Environmental Performance Award* for Schools and University Colleges of Teacher Education. This is a national government-based award to acknowledge top level performance since 2002. About half of the 120 criteria relate to EE and ESD, the school curriculum and school development. The other half refers to technical aspects, such as energy saving. The award is valid for 4 years; later, the compulsory external evaluation has to be renewed (Rauch & Pfaffenwimmer, 2014). The Ecologization Programme serves as an important source for the formulation of the pedagogical criteria (Pfaffenwimmer, 2004). Until today, over 100 schools have been awarded this Environmental Performance Award, some of them for the fourth time.

Since the 1990s, ECOLOG has proved to be a reference for other thematic networks in Austria focussing ESD like "climate alliance schools" (https://www.klimabuendnis.at/english), "climate schools" (https://klimaschulen.at) "nature parc schools" (https://www.naturparke.at/schulen-kindergaerten/schulen/), UNESCO schools (https://www.unesco.at/bildung/unesco-schulen/), and "healthy schools" (https://www.gesundeschule.at/). Between 2013 and 2018, the Austrian Ministry of Education, Department of Environmental Education compiled a list of all Austrian schools, which are active members in these thematic networks. One thousand schools are listed, some of them active in different networks. As there are 5,712 schools in Austria, we can state on this database that every sixth school in Austria has a continuous engagement in ESD.

From 1997 to 2004, the ENITE project (EE and ESD in teacher education) was carried out by the University of Klagenfurt as a research and development network, which supported the development and study of initiatives in teacher education and was inspired by ECOLOG especially at Universities of Teacher Education (Kyburz-Graber, Posch, & Peter, 2003; Posch, Rauch, & Kreis, 2000). The main outcome of the ENITE network to date is the National Teacher Training Course "Innovation in Teacher Education – Education for Sustainable Development" (BINE) offered by the Institute of Instructional and School Development at the University of Klagenfurt in cooperation with Universities of Teacher Education. The four-semester in-service course has run successfully four times, the fifth course is starting in 2019 (Rauch & Steiner, 2015). Since 2006/2007, teacher education is

involved in a dynamic reform process based on new legislation for teacher training. A positive result of the ENITE network and the BINE courses is that communication and collaboration and even participation between Universities of Teacher Education and the ECOLOG-schools network has been stabilized and enhanced (Rauch & Pfaffenwimmer, 2014).

In her recent evaluation study, Ziener (2017) writes that the annual reports by the participating schools, which are published on the ECOLOG website (https://www.oekolog.at/welcome.html), serve as outreach and impact of the program. Her analysis indicates the wide variety of external partners with whom schools regularly cooperate like parents' associations, municipalities/mayors, farmers, nature conservation associations, EE associations, national parks/nature parks, local universities and colleges, health and the social sector, industries, tourism, local media, etc.

Throughout the history of EE and ESD in Austria and especially since the Ministry's basic decrees for Environmental Education for Sustainable Development in 1985 and 2014 (Austrian Federal Ministry for Education and Women's Affairs, 2014), the engagement in locally relevant educational activities has been a central focus. Partnerships with external agencies and actors have proved as a valuable approach (Lukesch, Payer, Pfaffenwimmer, & Posch, 2009). In the years 2012–2014, "School-Community-Collaboration" was a focal topic for the ECOLOG program, also contributing to the ENSI-EU-Project CODES (2011–2014) (https://ensi.org/Projects/Our_Projects/CoDeS/; Rauch & Dulle, 2014).

In 2006, the Austrian UNESCO commission decided to award projects within the UN Decade ESD (DESD) that meet the international criteria of ESD. From 2007 to 2014, 201 projects of 168 organizations were awarded and documented in four publications of the UNESCO commission as well as in the "Bildungslandkarte" (Education Landscape)" of the FORUM Umweltbildung (Environmental Education FORUM; https://www.bildungslandkarte.at/). The "Education Landscape" is an electronic search tool to find Austrian organizations, which are active in the field of ESD and offer learning opportunities. At present, 525 organizations (actors) are registered. Since 2016, these institutions also have had the opportunity to apply for the Award "Education for sustainable development – BEST OF AUSTRIA" within the framework of the UN Global Action Programme.

Conclusions and Outlook

The ECOLOG program has been growing for many years, being the oldest network supported by the Ministry of Education. One reason for this is that ESD is always connected with current developments in the Austrian education system, such as quality evaluation and quality assurance. Other factors of success are the support system of the

network, which keeps the projects going, as well as an active evaluation culture, which includes AR as well as external, formative evaluations, which provide feedback and confirmation (Rauch & Pfaffenwimmer, 2014). The ECOLOG program influenced other developments in Austria, like the National Environmental Performance Award as well as other thematic school networks like Climate Alliance Schools, UNESCO Schools or Nature Park Schools. Overall, nearly 20% of the Austrian schools participate in one of these networks dealing with ESD issues. Beyond this impact, the experiences and evaluation outcomes gained in the ECOLOG program build foundations and provide orientation for awards like the UNESCO Award on ESD (in the context of UN DESD) and the current award Best of Austria (in context of the UN SDGs).

A challenge is still posed by sustainably anchoring ECOLOG at schools at the interface of innovation and as part of the dynamic everyday culture of these schools. In relation to regional support systems in the federal states, the respective professional and political contexts play a decisive role. The provision of stable and continuous support, which, at the same time, is flexible enough to dynamically respond to change, both makes high demands on all parties involved and, at the same time, also requires adequate resources.

The aim followed by ECOLOG is the implementation of ESD at individual schools in their respective local environment. ESD is conceptualized as the negotiation of conflicting interests. Without this, ESD cannot come to full fruition in the context of current social arrangements. Instead, ECOLOG challenges those conditions and formulates demands toward co-determination.

Hence, the ECOLOG program is caught between the danger of being instrumentalized by particular interest (e.g., one-sided economization) and being overburdened (by its claim to formative influence). The creation of spaces for exchange, networking, and reflexion are central elements of the ECOLOG program, through which it hopes to support ECOLOG network schools in their constructive handling of this area of tension (Rauch, 2016).

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Both the authors had full access to all data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Ethics

The study procedures were carried out in accordance with the Declaration of Helsinki. The Institutional Review Board of the Institute of Instructional and School Development of University of Klagenfurt approved the study.

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A case study of a Green Flag-certified preschool in Sweden

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Abstract

This paper presents findings from a case study intended to develop understanding of the practices within education for sustainable development at a preschool in Sweden and highlights its work with two themes: *The Health of People and the Planet* and *Human and Animal Societies.* This case study was part of a large school development project conducted by a university in collaboration with a municipality between 2017 and 2019. The preschool had two units with a total of 36 children aged 1–6 years, and 8 preschool teachers. Empirical materials were collected from observations of educational activities at two events, as well as group discussions with teachers and the preschool head teacher. Findings show that the interconnectedness of, and interdependencies between, the environmental, social, and, to some extent, economic aspects of sustainable development were present in educational practices of the preschool. They also indicate that young children, with support and encouragement from their teachers, can take responsibility for activities that are meaningful to them. In this preschool, children's opinions were respected, and they were given the opportunity to participate in decision-making activities of relevance to their lives.

Keywords: early childhood education, eco-certified, sustainable development, transformative learning, whole-school approach

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Introduction

Although the United Nations (UN, 2015, p. 17) 2030 Agenda for Sustainable Development emphasizes the importance of quality education and lifelong learning for all children, knowledge and understanding as to how to ensure quality in early childhood education for sustainable development (ESD) remain limited. For young children to become active global citizens, ESD has been identified as a significant tool in the achievement of sustainable development goals (SDGs; UN, 2015). A main ESD starting point in early childhood education is both to view children as active agents and stakeholders for the future and to ensure their involvement (Barratt Hacking, Barratt, & Scott, 2007; Davis, 2008, 2015; Pramling Samuelsson, 2011). With regard to integrating sustainable development into early childhood education, the new Swedish preschool curriculum Lpfö18 explicitly states that "*Education should give children the opportunity to acquire an ecological and caring approach to their surrounding environment and to nature and society*" (Skolverket, 2018a, p. 10).

The new curriculum supports a holistic approach that addresses the environmental, social, and economic dimensions of sustainability (Borg & Pramling Samuelsson, 2019). The environmental dimension focuses on issues related to climate change, disaster prevention, and natural resources; the social dimension emphasizes human rights, gender equity, health, and cultural diversity; and the economic dimension addresses poverty reduction, consumption, market economy, corporate responsibility, and and accountability (UNESCO, 2005). According to the curriculum, it is the task of preschool to lay the foundation for lifelong learning for all children. In cooperation with the child's home, the preschool should help children to become active and responsible members of society (Skolverket, 2018a).

The European Union (EU) recommends that educational institutions at all levels should strive to be sustainable organizations by integrating the principles of sustainable development into policy and practice (EU, 2010). In a school context, the EU (2010, p. 5) proposes "*the active participation of all stakeholders: school leaders, teachers, pupils, the school board, administrative and supportive staff, parents, NGOs, the local community and business*." ESD has become increasingly significant for educators throughout the world, particularly since the adoption of the 17 SDGs (UN, 2015), in which quality education was identified as being significant for the achievement of other SDGs.

Although Sweden is considered to be a leading country when it comes to integrating ESD into policy documents and implementing policy, there is a lack of research in the field of early childhood ESD (Breiting & Wickenberg, 2010; Persson, 2008). With its purpose to advance this field, this paper presents findings from a case study intended to develop understanding about the educational practices of ESD at a preschool in Sweden.

This paper highlights the preschool's work with two themes: *The Health of People and the Planet* and *Human and Animal Societies*. The following research questions were explored:

- Does the preschool integrate environmental, social and economic dimensions of sustainable development into its educational practices? If so, how?
- How do preschool teachers ensure the active participation of all stakeholders: for example, children, parents, and local communities?

In this article, teacher refers to both certified teachers and childminders. Furthermore, the terms sustainable development and sustainability are used synonymously throughout.

At a glance: Eco-certified preschool

In Sweden, preschool refers to a public or private educational institution for children who have not yet started their formal schooling. Regardless of family income or background, all children can attend preschool from the age of 1 year; from the fall of the year, they turn 3, they are entitled to 3 hr of free preschool education a day (Skolverket, 2018b). These children are usually between 1 and 5 years old. According to Statistics Sweden (Statistiska centralbyrån), in 2018, approximately 518,000 children were enrolled in 9,800 preschools, 72% of which were run by the municipality (Skolverket, 2018b). However, there are also preschools that are run by companies, parent cooperatives, and non-profit organizations. Regardless of owner, the education services are made available by the municipalities, which allocate funding to all preschools within their local community (Ärlemalm-Hagsér & Engdahl, 2015). From the age of 6 years, all children must attend compulsory preschool class. A preschool class is a separate type of school that is free of charge. The intention with the preschool class is that it serves as a transition between preschool and primary school. All municipalities are responsible for providing 3 hr of preschool education for children (Skolverket, 2019b).

The first national curriculum for preschool came into force in 1998, when preschool became part of the Swedish education system under the Swedish National Agency for Education. Environmental education, which includes gardening, outdoor play, going out in the forest, etc., has always been an integral part of preschool education in Sweden (Halldén, 2011). For the first time, the new preschool curriculum (Lpfö 18) explicitly includes sustainable development in its text (Skolverket, 2018a). This means that preschools are now required to integrate ESD into their educational practices.

Preschools in Sweden can be awarded two different types of eco-certification: one is "Green Flag" by the Keep Sweden Tidy (Håll Sverige Rent, 2019a), that is a part of the eco-preschool programs of the Foundation for Environmental Education; the other is

"Preschool for Sustainable Development" certification (Skolverket, 2019a), which is awarded by the Swedish National Agency for Education. Approximately, 1,500 preschools in Sweden are "Green Flag"-certified (Håll Sverige Rent, 2019a), and 215 preschools have a "Preschool for Sustainable Development" certificate (Skolverket, 2019a). The eco-certified preschools' activities are adapted to the Swedish school system, and their educational programs are often based on a whole-school approach to ESD (Henderson & Tilbury, 2004; Posch, 1999). A whole-school approach to ESD is when "*an educational institution includes sustainability principles in every aspect of school life. This includes teaching content and methodology, school governance and cooperation with partners and the broader communities as well as campus and facility management*" (UNESCO, 2017, p. 2). There is a great need for research on the implementation of ESD in preschools, which is the focus of this paper.

Background of the Study

This case study was part of a preschool development project aimed at developing preschool teachers' professional competence in ESD. It also aimed to investigate the impact of the project on teachers' knowledge, attitudes, and practices concerning ESD. The project was developed in collaboration with a preschool head teacher, two preschool teachers, and two leaders who work with education department in a municipality in Sweden. In 2017, a baseline survey was conducted among preschool teachers in the municipality to explore their needs and their expectations from the project. The findings revealed that 66% of the preschool teachers did not have any education or training in ESD. In 2017–2019, three professional development workshops on ESD were held by researchers as part of this project. About 150 teachers from 18 preschools took part in each workshop. The workshops took up the following:

- Introduction to sustainable development and ESD.
- The holistic approach to ESD addressing the environmental, social, and economic dimensions.
- The rationale for ESD in early childhood education.
- Introduction to the global goals and Agenda 2030 for Sustainable Development (UN, 2015).
- National policy documents with a focus on the new curriculum for preschool Lpfö 2018.
- The process of working with ESD with young children.

An ESD network was established by preschool teachers in the municipality, where they discuss teaching issues, and progress and challenges related to ESD, and where they provide each other with practical tips. The researcher (author of this article) was present at two ESD network meetings.

Conceptualization of ESD in Preschool Education

The global sustainable development agenda emphasizes the need for education that incorporates new knowledge to deal with such complexities and uncertainties as poverty, gender inequality, climate change, natural disaster, and inequalities within and between individuals and countries (UN, 2015). Raising awareness about the critical condition of the planet is not enough to change the behavior of the individual or his/her values; rather, there is a need for alternative forms of education and learning that result in action competent individuals (Mogensen & Schnack, 2010; Wals & Corcoran, 2012). The suggestion is that ESD is an effective teaching approach that takes different perspectives, views, and values into account (Öhman, 2008), since ESD supports transformative learning that leads to changes in the surrounding world (Blake, Sterling, & Goodson, 2013).

The findings from studies in whole-school approaches indicate positive outcomes in relation to children's learning for ESD and improved educational practices at preschools (Chan, Choy, & Lee, 2009; Davis, 2005; Lewis, Mansfield, & Baudians, 2010; Mackey, 2012). A whole-school (institutional) approach to ESD deals with the integration of sustainable development in daily educational practices throughout curriculum in a holistic manner, which includes all levels and parts of school organization instead of teaching sustainable development as an isolated topic (Hargreaves, 2008; Henderson & Tilbury, 2004).

Studies have shown that teachers play significant roles in the development of young children's verbal and practical knowledge about sustainable development issues by involving them in different activities, such as interactive plays, conversations, discussions, and outdoor and indoor activities (Borg, 2017a; Davis, 2005; Lewis et al., 2010; Mackey, 2012). Yet, there is little ESD material and few inspiring examples of ESD in practice at the preschool level in particular (Borg, Gericke, Höglund, & Bergman, 2012; Hedefalk, Almqvist, & Östman, 2015).

According to Bruner (1960), the social environment and social interactions are important when it comes to children's learning. Bruner (1966) argues that the involvement of adults – for example, teachers – and knowledgeable peers plays an important role in children's learning because they can make a great difference in the learning process by making the information appropriate to each child's current level of understanding. He further states

that children are active participants in learning and that they are capable of learning many complex issues, if the instructions are organized appropriately (Bruner, 1960). Since it is preschool teachers who face the challenge of integrating all complex aspects of ESD into daily educational activities, they need to understand *what* they are communicating, *how* to go about it, and crucially *why* they are doing so in the first place (Vare & Scott, 2007).

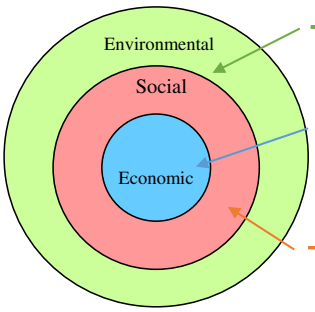
In preschool education practices of ESD, "The Seven RE-Words" (the 7Rs) are used. The 7Rs framework was originally introduced by the Brundtland Commission in *Our Common Future* (1987); it was then further developed by the World Organization for Early Childhood Education World Assembly (OMEP; Engdahl & Rabušicová, 2011) with the intention of supporting ESD practices at the preschool level (Table 1).

These 7Rs together represent three dimensions of sustainable: for example, *Respect, Reflect*, and *Rethink* refer to the social dimension; *Reuse* and *Reduce* relate to the environmental dimension; and *Recycle* and *Redistribute* highlight the economic dimension (OMEP, 2011). They describe specific approaches that children can adopt in their local environments and that tie closely with the global values of respect, equity, and diversity (UNESCO, 2012).

A Case Study of a Green Flag Preschool

This case study was conducted between 2017 and 2019 at a preschool that was part of the preschool development project described above (see section "Background of the Study") by a researcher (the author) at a university in Sweden. Since 2009, this particular preschool has met the requirements for Green Flag certification. Its journey with ESD began with a passionate and committed preschool teacher (Marit), who has always been

Table 1. The 7Rs are described in relation to concentric circles where society and the economy are shown to be embedded in the wider environmental circle

Concentric circles of sustainable development	The seven RE-Words (The 7Rs)	Description of 7Rs
	Reduce	Doing more with less
	Reuse	Making use of old thing
	Recycle	Someone else can use it again
	Redistribute	Using resources more equally
	Respect	Showing respect for the rights of children
	Rethink	Valuing other things
	Reflect	Mentioning cultural differences in the world

Note. This model depicts the need for setting boundaries for a sustainable society and economy within environmental limits (Elliott, 2013). Source of 7Rs: OMEP project about ESD.

interested in integrating sustainable development issues into daily preschool educational activities. Her ESD work with young children inspired other colleagues and gradually they themselves became active with ESD. At present, the entire preschool is actively engaged in the Green Flag program, and the preschool has received several awards from its municipality for the quality of its education activities.

A Green Flag-certified preschool usually works with different themes published on the homepage of the Keep Sweden Tidy Foundation (https://www.hsr.se/exempelsamling/sok-exempel-forskolan). Green Flag certification is a quality assurance of ESD work. The criteria for certification are as follows: linking to the global SDGs, implementing different educational methods, working in a democratic manner, ensuring the involvement of children, and making the work visible outside the preschool (Håll Sverige Rent, 2019b).

In the beginning of the school development project, the preschool teachers attended 3 days of educational workshops to learn about sustainable development, ESD, Agenda 2030 for Sustainable Development, the 17 SDGs, and pertinent policy documents in Sweden (including the new preschool curriculum). In addition to these workshops, two group discussions about the holistic approach to ESD were held by the researcher at the studied preschool. All teachers and the preschool head teacher attended both group discussions.

Data collection and analysis

The preschool in this study had two units with a total of 36 children aged 1–6 years, and 8 preschool teachers, 2 of whom were childminders. One unit was for younger children ($n = 22$) aged 1–3 years, and the other was for older children ($n = 14$) aged 4–6 years.

This case study was carried out "with" and "for" the teachers rather than being "about" and "on" the teachers (Heron & Reason, 2001). The reason for this was to explore real activities at the preschool (Cohen, Manion, & Morrison, 2011). The researcher did not plan or propose any activities; rather, she observed things as they happened and then had informal conversations with the teachers, so as to understand their perspectives, views, and justifications. The empirical material was generated through observations of teachers' ESD work with children; group discussions with teachers, and the preschool head teacher; two ESD network meetings with teachers (December 18, 2017 and October 15, 2018); attendance at two events (Earth Hour on March 24, 2018 and a vernissage of children's work on May 22, 2019); reading the preschool's Green Flag reports; and attendance at the preschool's planning meetings.

The researcher read the empirical materials, which included notes from observations of preschool teachers' ESD work, as well as notes from meetings and group discussions,

more than once to ensure familiarization with the data. "The Seven RE-Words" (the 7Rs) were used while coding and analyzing data. To understand ESD practices in this preschool, we used relevant policy documents, findings from empirical studies, and the 7Rs to discuss the findings (see section "Conceptualization of ESD in Preschool Education").

Ethics

The preschool voluntarily consented to participate in this study when it agreed to be part of the school development project. This study followed the codes and regulations of "Good Research Practice" (Vetenskapsrådet, 2017) concerning the informed consent of participants, confidentiality, and use of information for the study.

To inform the guardians of the children about the presence of a researcher in the preschool, an information letter with a photo of the researcher was posted on the notice board at the preschool. It was believed that in this way, the guardians would be aware of the project and be able to identify the researcher when she was at the preschool.

The study procedures were carried out in accordance with the Declaration of Helsinki. Since it is a school development and research project, all preschools and teachers consented their participation in the study in the beginning of the project. The teachers were informed that their participation in this case study was completely voluntary and that all research data about them, the preschool, and the participating municipality would be handled confidentially. They could discontinue or withdraw from the study at any time without providing a reason. Moreover, they were informed that data collected for this study would be used only for research purposes, conferences, teaching programs, and scientific publications. The study did not include any sensitive information about the participants.

The study did not collect any sensitive information or personal details about the participants. The study was registered under the General Data Protection Regulation at the university where the author is employed. All names were removed from the list of participants after data were analyzed and the final project report had been prepared. Fictive names are used to anonymize the identity of all participants.

Findings of the Case Study

The preschool in this study works with different themes for a certain length of time: for example, 6–12 months. The teachers integrate ESD into their planning, in which they seem to engage children and prioritize their choices.

In the following, the findings of this study are presented under two themes. The data for *Theme 1* were collected from observations of the preschool's educational activities and the

event Earth Hour, informal discussions, and group discussions with preschool teachers; the data for *Theme 2* were collected from conversations with preschool teachers and observation of the vernissage of children's work. To anonymize the illustrations, the names of children and places have been deleted.

Theme 1: The health of people and the planet

In 2017 and 2018, the preschool teachers focused on the theme "*The Health of People and the Planet*" for which they combined three Green Flag themes: Lifestyle and Health, Litter and Waste, and Climate and Energy instead of working with each theme separately. With guidance and support from the teachers, the children actively participated in selecting content and planning different activities. Although the issues related to environmental and social dimensions of sustainability were obvious for all teachers in that preschool, the economic dimensions were found challenging by the teachers.

The teachers were instrumental in encouraging children's participation by facilitating their involvement in activities using songs, stories, dramas, plays, films, illustrations, drawings, and experiments. They also helped children to take part in informal talks in groups. For example, one teacher (Anna, preschool teacher) read a book that was about the importance of friendship. The story was used to initiate a conversation with the children about how to be a good friend, about different animals and their lives, and about how to take care of the environment. A brief description of the activities with some of the children's illustrations is presented below.

People's health. The teachers initiated activities by asking the children, "*What do our bodies need to be healthy?*" (Figure 1). The children answered, "*Our bodies need food*," "*We have to play ice-hockey*," "*We need clean air and oxygen*," "*We should drink lemonade and water*,"

Figure 1. What do our bodies need to be healthy?

"*We must play*," "*People should spend time in nature*," and "*Walking is good exercise*." Some of the children responded that "*We must run and jump*." Gradually, the conversation led to a drawing activity. The children worked with their friends in small groups and drew pictures of different activities and food items that they identified as being healthy. According to some of the children, "*We need to eat nutritious food, such as carrots, cucumbers, tomatoes, salad, meat, bell peppers and apples. We have to drink a lot of water. We need to play and be active.*" The children also felt that having a house or a tent is important for good health.

The health of planet Earth. The teachers showed an illustration of a group of children beside a large globe (see Figures 1 and 2) and asked the preschool children what the children in the illustration were doing and why. The preschool children responded that the earth is dirty, so the children are cleaning it.

The teachers then connected the health of human beings with the health of the planet by asking, "*What does the earth need to be healthy? How can we help the earth?*" The children pondered this, and then drew their thoughts and ideas on paper. The teachers wrote down the verbal responses of the children in their drawings (see examples in Figures 2 and 3).

According to the children, "*We need trees to keep the earth healthy. We should take care of trees because they clean the air. The earth wants clean air*." Other responses were: "*The earth wants to be clean. We can help the earth be clean by picking up litter*," "*We can ride cycle instead of taking cars to reduce pollution*," "*We should not waste water. We must turn off the tap and switch off lights when we go out to save energy*." Some children wanted to help the earth by "*buying food that is grown in Sweden and in local places*" (the name of the municipality is deleted in the illustration for the sake of anonymity) and by "*recycling*."

Figure 2. What does the earth need to be healthy?

Figure 3. How can we help the earth?

Figure 4. Handmade toy cars

The children made toy cars out of empty milk packets, egg packets, plastic lids, and old paper, and then colored their handmade toy cars with pens (see Figure 4). In most cases, the children talked about what they could do to help the earth be healthy, and they also wanted to take responsibility as a step toward making the earth a better place to live.

Theme 2: Human and animal societies

In 2018–2019, teachers and those children in their final year at preschool decided to host an evening vernissage of their work at the preschool. The theme of the vernissage was *Human and Animal Societies*, which was inspired by the two Green Flag themes:

"City/Town and Society" and "Animals and Nature." Under this theme, the teachers integrated the environmental, social, and economic dimensions in a clear and organized way. Constantly, they connected the themes with relevant SDGs of the Agenda 2030 for Sustainable Development: for example, Good Health and Well-Being (goal 3), Sustainable Cities and Communities (goal 11), and Climate Action (goal 13) (UN, 2015).

The children's parents, the preschool head teacher, local politicians, friends, and others were invited to attend the vernissage of the children's work. The past-year preschool children hosted the vernissage themselves, and the teachers supported them in the background. One teacher (Anna) explained that "*We have worked many hours together with the children on this vernissage. The children are so excited*."

The guests were welcomed by the children, who took turns showing the guests the town they had constructed, their handmade toys, paper dolls, and illustrations. They gave explanations and answered guests' questions.

One preschool teacher (Marit) explained how the work began with some questions: for example, "*Where do I live? What does our town or village have? What do I have in my community?*" She described how the children drew the communities where they and their families lived. They were very happy and proud of their families, homes, friends, and town or village (see Figure 5). Marit continued:

> *The children were aware of the facilities they have in their community – for instance, the supermarket where they buy food, healthcare centres, hospitals, fire brigade, police station, bus stop, train station, preschool, school, etc. They worked individually as well as in groups*. (Marit, preschool teacher)

Figure 5. What does our town have?

Figure 6. Norms and values in humans' society

Figure 7. Animal society

One preschool teacher (Ulla) explained the importance of democracy in any society, stating how at the preschool they work a lot with democracy, as well as norms and values (see Figure 6), which have always been an integral part of the Swedish preschool curriculum. The preschool teacher (Ulla) continued to say that not only they worked with democracy with the children, but that they also made sure that children's voices were heard and their opinions respected.

One preschool teacher (Anna) described how "*We connected human society with the society of animals*." The children stuck pictures of different wild animals onto a piece of paper (see Figure 7). They watched short films of animals – their lives and their societies. They learned the names of different animals, and they learned about their lifestyles and

food chains. The importance of forests and of taking care of the environment were also included in the work.

The teachers explained how they included the economic dimension of sustainable development by incorporating issues related to the consumption of resources, such as water, electricity, and fuel. Together with the children, the teachers reflected on how people can *reduce* their consumption of energy and resources by switching off the lights when they go out, using less water while showering, and reusing and *recycling* goods. To reduce consumption and to learn to *reuse* materials, the children constructed their town and communities using old milk cartons, plastic lids, egg boxes, shoe boxes, paper, thread, and pieces of wood that they had found in the forest. They also used such material to make innovative toys, which they found fun to play with. One teacher explained that:

> *We play with the different toys that the children made themselves, for examples, cars, buses, trains, bicycles. They (the children) come to us to show us the toys they have made. We talk about the environmental impact of using different types of transport*. (Anna, preschool teacher)

In a group discussion, the teachers explained that at this particular preschool, teachers always ask children what they would like to do. The children decide something that they like and then the teachers plan the activities together. They explained that "*We respect children's opinions and listen to their ideas*." The teachers watch YouTube films, read books, go out into nature, and do experimental work. One teacher (Marit) stated that "*We have a Green Flag Advisory Board that is led by children. It helps children to be responsible and to build self-esteem*."

Discussion

In this paper, we discuss the findings of this case study in relation to the 7Rs framework, holistic approaches to ESD, as well as related literature, while addressing the extent to which the preschool teachers adapted their teaching practices to accommodate these aspects.

Implementation of ESD: The interconnectedness of humans and nature

The findings indicate that, to a great extent, the teachers connected the environmental, social, and economic dimensions of sustainability in their work using the themes "*The Health of People and the Planet*" and "*Human and animal societies*" to show the inter-connected systems of humans and nature. As with previous studies (Ärlemalm-Hagsér, 2013; Davis, 2008), this case study demonstrates that the economic dimension was difficult for teachers to implement in their teaching. In this study, teachers related the economic aspects to *reduce* (mainly in terms of reducing water and electricity

consumption), and to *recycle* and *reuse* (mainly in terms of recycling and reusing plastic, paper, and natural resources).

The Swedish curriculum for preschool emphasizes that "*Children should also be given the opportunity to develop knowledge about how the different choices that people make can contribute to sustainable development – not only economic, but also social and environmental*" (Skolverket, 2018a, p. 10). As children are the bearers of norms and values that shape future societies (Eagly & Chaiken, 1993; Hofstede, Hofstede, & Minkov, 2010), it is important that they are aware of their surrounding society.

Studies on young children's understanding of economy and society have shown that by the age of 6 years, they have started to develop an awareness about social and economic issues (Barrett & Short, 1992; Borg, 2017b). Therefore, preschool can be an important place to begin addressing simple economic issues that children deal with in their daily lives (Borg, 2017b, 2017c).

Implementation of ESD: Content and methods

With support from teachers, the children were actively involved in planning the content (learning object) and the process of observing the Earth Hour and hosting the Vernissage. Through their active participation, the children showed a sense of responsibility. This was not completely unexpected, as it has been reported that:

> *When young children are involved in making decisions that affect their lives, including those decisions regarding sustainability and the natural environment, they are capable of contributing to the decision-making that leads them to purposeful action*. (Mackey, 2012)

Similarly, Davis (2008, p. 7) argues that young children are able to critically respond to sustainability issues and that they "*can be proactive participants in educational and environmental decision-making – as initiators, provocateurs, researchers and environmental activists*."

In this study, the preschool teachers used various teaching methods to teach sustainability such as playful interactions, informal conversations between teacher and children, drawing and painting, watching short YouTube films, reading children's books, acting out scenes, discussing in pairs and in groups, and having outdoor and indoor activities. According to Pramling Samuelsson (2011), ESD can be both "*content (the object of learning) and a way of working with children (the act of learning) in the early years*." By combining different themes with various teaching methods, the preschool teachers in this study seemed to create lively and new dimensions in their work. This is consistent with what Pramling Samuelsson and Johansson (2006, p. 63) argue for – that is to say, that

teachers need to have respect for children's world of play to make the preschool a place for meaningful and joyful learning.

Implementation of ESD: Transformative learning

Researchers (Davis, 2008; Singer-Brodowski, Brock, Etzkorn, & Otte, 2019) have stated that implementing ESD in preschool education is not easy because it requires a great level of collaboration within the entire school if it as an organization is to have a culture of sustainability. There is still a long way to go when it comes to the implementation of ESD in preschool education; however, steps have been taken. Consistent with Jackson's (2007) and Davis's (2008) findings, this study found that integrating sustainability within a preschool can result from an individual teacher's passion for sustainability. This was the case with the preschool in this study, where over time other teachers became both inspired and involved in ESD activities. The teachers mentioned that after they attended the competence development training/workshops, they learned more about the three dimensions of sustainable development and the global SDGs, which helped them to see how their work relates to them.

There were many people involved in the vernissage: not only the children and the teachers, but also parents, politicians, friends, and colleagues. This was to make visible the preschool activities to outside society, which is a transformative approach. This type of innovative event may be used as an example for other preschools.

The findings of this study also indicate that the environmental, social and, to some extent, economic aspects of sustainable development were interconnected and interdependent in educational activities of the preschool. Young children, with support and encouragement from their teachers, can take responsibility for activities that are meaningful to them. In this preschool, children's opinions were respected, and they were afforded the opportunity to participate in decision-making activities that related to their lives.

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This is a single-authored paper written based on a case study conducted by the author herself. All data were collected and analyzed by the author.

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Do eco-schools really help implementation of ESD?: A comparison between eco-school systems of Hungary and Israel

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Abstract

As global challenges to sustainable development are increasing, there is a growing pressure for educational systems to embed education for sustainable development (ESD) into formal education. To meet this demand, Eco-School systems were established in many countries during the past decades. Using General Inductive Approach to analyze raw data sources like interviews with experts and eco-school principals, documents, and official as well as educational research databases both in Hungary and in Israel, the paper compares the process and the outcome of the implementation of eco-school movement in Hungary and Israel. The major conclusion is that eco-school system itself has a significant positive but limited effect on the implementation of ESD in educational systems. Without a person, a "change agent," without the commitment of the principal or the teachers, the central eco-school initiative could not trigger changes on local levels; however, eco-school systems may survive for another decade if eco-school teachers

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continue innovation and collective learning. On the system level, the existence of the movement demonstrates the sustainability pedagogy for decision-makers – and therefore they can be satisfied without further efforts.

Keywords: education for sustainable development, school organizational change, eco-schools, whole-school approach, Human Reaction and Action System

Introduction

Over the past 40 years in education spheres, sustainability has been viewed as a possible solution to the environmental crisis (Rickinson, 2001). After recognizing the importance of sustainability, educators, activists, and policymakers have searched ways to introduce sustainability into the education system, resulting in organizational change. Consequently, education for sustainable development (ESD) was developed and its implementation aims at changing educational systems. This change has impact on the curricula, learning outcomes, and infrastructure of schools. Moreover, it also influences the pro-environmental behavior of school staff, students, and community. Eco-school certification systems are usually set up to facilitate these changes (Affolter & Varga, 2018; Mogensen & Mayer, 2005), which include curricula application (e.g., knowledge, awareness, and behavior) and daily-life changes to support pro-environmental behavior (e.g., recycling center and saving resources; Kurland, 2011). Despite the importance of ESD change, the stakeholders of implementation of the necessary organizational changes are usually resistant to change (Moore, 2005; Szabla, 2007).

Change theories offer frameworks for analyzing the processes and results of changes initiated by eco-school systems. As a theoretical basis of our research, we used the Human Reaction and Action System (HRAS) model (Szabla, Warner, Stefanchin, & Robinson, 2011). This model is based on open-system theory and deals with the human reaction to change (i.e., encourages action or makes resistance to change). This model may help to understand organizational change and its corresponding resistance (e.g., in the education system). The HRAS model includes three main change subsystems and the reaction to change as the basis for the model that influences and influenced by three subsystems: change content, the process of change, and the context of change. Reactions to change can be observed in processes like changes in beliefs, emotions, intentions, and behaviors. This model is based on the open-system theory (Burke, 2008), which represents inputs and outputs of the change system, and the interaction among the influences of organizational change and other subsystems.

The aim of this study was to analyze the implementation of the eco-school initiative in Hungary and Israel based on the HRAS model. The quality criteria for ESD schools (Breiting, Mayer, & Mogensen, 2005), which were established based on the analysis of several countries' initiatives for ESD implementation in the school system, indicated that the common elements of these initiatives are: openness for a change in content, context,

and processes. On this basis, the HRAS model seems to be applicable to analyze the work of these initiatives. Accepting change has to be an imminent element of educational systems, if we would like to realize the global vision of ESD. According to Lindberg (2015), ESD has to be in the center of education systems if we want to achieve sustainable development and this needs significant changes in the educational systems.

By analyzing change content, process, context, and their interactions and reactions, this inquiry tries to identify the possible barriers of implementation of the eco-school approach in educational systems, and so to reveal some insights about the barriers of changes needed for mainstreaming ESD in education.

In the following paragraphs, we present the Israeli and Hungarian eco-school certification systems briefly as examples of localizations of the global vision of ESD and the initiated organizational changes.

Eco-schools in Israel – Background

In Israel, the eco-school change process operates similar to other certification programs (Wu, 2002). In the Ministry of Environment and Ministry of Education, a standing committee, including representatives from governmental agencies, NGOs, and environmental experts, publishes requirements for certification and evaluates school applications for eco-school certification. After a school applies and demonstrates that it meets all requirements, it receives the certification and $3,000. After 3 years, schools can deepen their ESD practice and receive an advanced certificate for "continuous" eco-school by involving all grades in the ESD process, by rationally using resources in all criteria, and by continuing to create pro-environmental behavior in the community (Ministry of Environment, 2009, 2010, 2012). Eco-school certification adoptions in Israel are not mandatory; individual schools could decide whether or not to participate. According to previous studies, many of the earliest schools participating in the program were already deeply committed to ESD and had changed and affected many aspects of schools (Pizmony Levy & Gan, 2011).

Israeli process of eco-school certification

The eco-school certification was established in 2004 by the Israeli Ministry of Environment and Ministry of Education. An example of eco-school certification is presented in Figure 1. To date, there are 1,075 eco-schools[5]. Eco-school requirements are divided into three domains, and schools are expected to monitor and improve their performance in

[5] http://www.sviva.gov.il/English/ResourcesandServices/NewsAndEvents/NewsAndMessageDover/Pages/2018/01-Jan/Ministries-of-Environmental-Protection-and-Education-Certify-49-Green-Schools.aspx.

Figure 1. Israeli eco-school certification

each. The first domain is pedagogy and schools are evaluated on the integration of environmental subjects into the curriculum and the number of students enrolled in environmental subjects each year (e.g., schools need to enroll at least two grade levels, for at least 30 hr a year). This domain aims to meet ESD's goal of increasing knowledge and awareness of environmental issues. The second domain is the rational use of resources and schools are evaluated on their resource management practices, such as reducing energy, water consumption, recycling paper, and plastic. Schools are required to reduce the use of at least one resource and/or recycle at least three materials, such as plastic bottles, paper, and batteries. This domain is aimed at enabling schools to change behavior and to increase pro-environmental behavior using active learning and experience. The third domain entails a contribution to the community and the environment, and schools are evaluated on students' involvement in continuing projects that contribute to environmental awareness in the community and lead to behavioral changes. Examples of community projects include adopting recycling programs in the community, developing community gardens (as presented in Figure 2) and encouraging educational campaigns (Ministry of Environment, 2010).

The Hungarian eco-school program

The Hungarian eco-school program was established in 2000 with 40 pilot schools based on the whole-school approach of the Environment and School Initiatives (ENSI) network and has continuously been expanding since then. Schools that had long been committed to environmental awareness were the first to join. The program is a national adaptation of the eco-school initiative of the ENSI network, which was an international government-based network focused on innovation and research in ESD. ENSI brought together school initiatives, educational authorities, teacher trainers, educational research institutions, and

Figure 2. A school community garden at an Israeli eco-school

other stakeholders. Therefore, the most innovative aspect of the program is that it continuously encourages all stakeholders of schools to actively participate in school development processes to a more effective ESD. The program promotes environmental understanding, active approaches to teaching and learning, and citizenship education, mainly through running the system of eco-school title as a tool for self-reflection and quality assurance of ESD and through providing in-service teacher training (Varga & Havas, 2018).

After a 4-year learning period, the Hungarian eco-school program was formally established, with the launch of the first open eco-school application form in 2004. The first title was handed over in 2005 by the Ministry of Education and the Ministry of Environment. In 2019, there are 1,003 eco-schools, including the 432 "eternal" eco-schools. These account for about the quarter of the Hungarian schools, teachers, and pupils. For 15 years, the eco-school title has served the highest governmental recognition of those schools that deal with the practical realization of ESD in a carefully considered, institutional and systematic way in Hungary. The program was the model for the Green Kindergarten Program. Principles of sustainability are not only present in the pedagogical practice of the schools but also in all fields of school life. Local environmental issues and problems are dealt with priority in eco-schools' pedagogical work. The monitoring of the program proved that certified eco-schools are continuously transforming themselves into a social center for sustainable development, where all the stakeholders have a voice and active cooperation with local society. In this way, eco-schools prepare students for active citizenship (Varga, Könczey, & Saly, 2017).

Since 2015, the eco-school criteria include community service, which should empower teenagers to transform themselves and the community they live in. The program also promotes sustainable economic entrepreneurship and encourages students to think

about and even start and run their own sustainable businesses. The program should contribute to a more environment-friendly school maintenance by supporting energy-saving and nature-friendly activities and infrastructural developments, like organizing energy-patrol activities, or creating a natural habitat in schoolyards. Education for global responsibility, as a new pedagogical aspect of eco-schools, was included into the system in 2017.

Hungarian process of eco-school certification

Schools can join the network on a voluntary basis by applying for the eco-school title. The application contains a letter of intent, and some compulsory and many optional commitments. An applicant school declares that their pedagogical program represents the aims of ESD exceedingly. They also take responsibility for preparing the annual eco-school working plan along with the eco-school criteria and publish it on the website. The annual work plans of all the working groups of the school shall adjust to the eco-school work plan, i.e., having ESD content. Those teachers or school coordinators, who take the responsibility and task for making the application, need a strong commitment toward sustainability (or at least one of its aspects), because they fulfill this task without a pay-off. Self-assessment of the whole-school ESD performance is supported by an eco-school criteria system (see http://ofi.hu/self-assessment-criteria-eco-schools-hungary-2018). Eco-school criteria cover the whole school life in the following aspects: school documents, school organization, operation, education, school specialties, communication, and external cooperations with ESD actors and with the local community.

A committee led by the Ministry of Education and supported by the Ministry for Environment, which includes non-governmental and academic representatives of ESD, revised and operated the application system since 2005. During the annual reviews, the title system and the eco-school criteria were gradually and slowly refined. The committee evaluates school applications, and the two state secretaries of the two ministries issue the eco-school certifications.

After a school applied successfully for its first eco-school title and demonstrates its engagement and responsibility for 3 years, it can renew its title for another 3-year period. The eternal eco-school title can be attained after 7 years of dedicated work, which means that eternal eco-schools could hold the title without reapplying for it. All eco-schools and eternal eco-schools are subjected to a monitoring system, and if they do not meet the requirements or do no not fulfill their commitments, their titles could be withdrawn by the ministry responsible for education.

Titleholders will be the member of the Network of Eco-schools, which facilitates Hungarian and international contacts of the members and provides special ESD information regularly, and furthermore the programs of the Network facilitate professional development of schools and teachers. As members of the network, eco-schools are supported in several ways:

- a biweekly newsletter with ESD-related news and program recommendations to eco-schools,
- a regularly refreshed website (http://ofi.hu/okoiskola),
- translations of international ESD teaching materials,
- regional meetings (4–5 years with 40–50 participants each),
- three kinds of in-service teacher training on ESD (held for about 420 teachers in the past 5 years; see evaluation in http://ofi.hu/node/181290),
- a complex pedagogical system and program with 220 ESD-related lesson plans,
- participatory research and field activities for schools (e.g., Traces of Life action; see Figure 3 and results at https://tinyurl.hu/m30E/),
- innovations following current educational trends (Könczey, 2014), for example, a mobile game app N2Kaland.

A group of 2–3 eco-school experts serve the Network in these supporting areas. Joining the Hungarian eco-school program does not mean either direct extra spending or revenue for the school, as the application is free and the title does not involve a cash grant. To date,

Figure 3. Pupils participating in the Életjelek (Traces of Life) action program from Szekszárdi I. Béla School

the quality work of eco-schools was based on their annual self-reflective reporting, and on random on-site monitoring of eternal eco-schools.

Research questions

- What are the similarities and differences between the development, and process of eco-schools certification in Hungary and Israel?
- In what ways the eco-school criteria and program supported or hampered the implementation of ESD?
- What are the schools' motivations for implementing eco-schools certification?

Methods

For this study, we employed the General Inductive Approach for analysis (Thomas, 2006). In the inductive approach, the researchers allow findings to emerge significant themes and categories from the raw data. Many qualitative studies use both inductive and deductive analyses, which are the ways to check consistency with the categories identified prior to the analysis (Thomas, 2006). In this study, first we used the inductive approach for identifying categories regarding the phenomena of eco-schools, and then we used deductive approach focusing on the presentation and description of the main categories to compare the eco-school phenomena in Hungary (Varga & Havas, 2018) and Israel (Goldman, Ayalon, Baum, & Weiss, 2018; Shay-Margalit & Rubin, 2017). In the deductive analysis stage, we used the HRAS model (Szabla, 2007) for comparing the subsystems (i.e., content, process, context, and reaction to change).

Our raw data sources were interviews with experts, eco-school principals, documents, and former official and educational research databases in both Hungary and Israel. From Hungary, raw materials included the data retrieved from the yearly online monitoring questionnaires and school visits of eco-schools from 2008 to 2017 (Varga et al., 2017). Altogether, the data sources included more than 5,000 questionnaires and more than 100 school visits and individual or focus group interviews for previous studies (e.g., Cseh, Lőrinci, & Tóth, 2016; Kézy & Varga, 2007) and from informal talks and correspondences with eco-school leaders and teachers about the implementation of the eco-school approach in Hungary. Raw materials from Israel included data about eco-schools (Ministry of Environment, 2009, 2010, 2012), interviews with 30 school principals (Pizmony Levy & Gan, 2011), questionnaire (with closed and open-ended questions) of 400, 6th grade students from eight eco-schools (Goldman et al., 2018), questionnaire of 600 elementary school's students (Shay-Margalit & Rubin, 2017), and informal talks and correspondences with eco-school leaders and teachers.

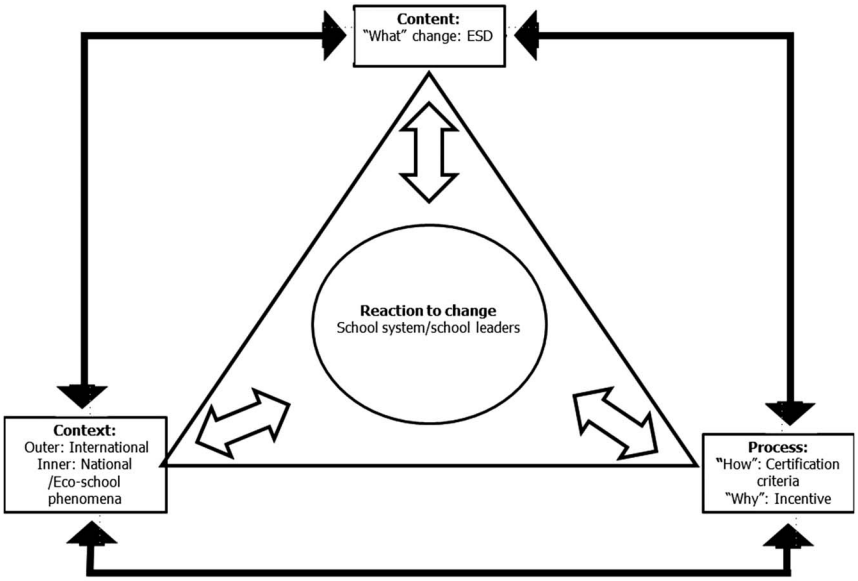

Figure 4. The Human Reaction and Action System and its implementation in the eco-school phenomena (based on Szabla, 2007)

After describing the most widespread "whole institution sustainability education model" of the two countries (the eco-school systems), we developed the main categories and revised them (Thomas, 2006) until the authors agreed on the final categories. We performed the final analysis in a deductive approach, according to the HRAS model (Szabla et al., 2011) in its three main change subsystems: (a) the *content* (the type of ESD), (b) *process* (the implementation process of eco-schools – certification criteria), and the (c) *context* that includes the international context (outer context) and national context (Hungary and Israel) and schools (inner context). We also analyzed the *reaction to change* that included the school system and school leaders (Figure 4). The analysis of the eco-school organizational change was conducted on the level of the national systems comparing Hungary versus Israel.

Results

The results are presented in two parts. The first part of the analysis of the Israeli and Hungarian systems is presented according to the HRAS model parallelly and finally the second part is followed by a comparative SWOT analysis and a summary based on the results.

Change content

In this study, the primary substance of change is ESD and its implementation following a whole-school approach. Implementation of the whole-school approach of ESD is not compulsory in the investigated countries. Eco-school certification serves as the recognition

of those schools that deal with the practical realization of environmental consciousness, awareness, sustainable consumption, and knowledge, which include learning and training for sustainability in a carefully considered, institutional and systematic way. An eco-school differs from the average school in the fact that the principles of sustainability are present not only in its educational activities but also in all fields of school life and behavior, on a higher level than in non-certified schools. Local environmental issues and problems are dealt with priority in the schools' pedagogical work. Details of the content of the eco-school certification were presented above (see sections "Israeli process of eco-school certification" and "Hungarian process of eco-school certification"). In this section, we are focusing on the changes generated by the certification processes in the content of the certified schools.

Examining the change content, we analyzed the substance of organizational change according to the change types: episodic and continuous. Episodic change is an organizational change that is usually revolutionary, deep, discontinuous, and infrequent. In contrast, continuous change is usually evolutionary, incremental, ongoing, and evolving (Szabla et al., 2011; Weick & Quinn, 1999). Eco-school adoption in Israel and Hungary reflected both episodic and continuous types of change. The change in a school usually begins episodically when the school identifies a need to change the content of its work (i.e., ESD and eco-school implementation), the context that the school works (i.e., national and international sustainability discourses), and the process. Initially, this change in the case of many schools was revolutionary, deep, and affected many aspects of schools in Israel (Table 1). For example, eco-school certification required to change the curricula and budgets of the schools (e.g., investment in ESD advisors to help schools to obtain certification), as well as changes in the community. However, in Hungary, where the first 40 schools were already enthusiastic toward ESD and started eco-schooling by applying and adapting an international (ENSI) system to the country, the initial change was not very radical (Table 1). Later, when self-evaluation system made it possible, all voluntarily applying schools found their comfortable way to become an eco-school. In both countries, after implementing the first changes, the change became continuous in those schools, which became more and more "green" to gain the second or third certification. Eternal eco-schools in Hungary increase change content by offering more classes to enhance environmental knowledge, or by undertaking more environmental criteria and becoming a local eco-school knowledge center for novel schools nearby. There are also higher standards in other criteria in these levels.

Change process

In this study, the process reflects the certification procedure, criteria, and incentives for participation. Change process – according to the HRAS model – refers to the "how" and "why" creating a change at national level (Burke, 2008; Szabla et al., 2011), which was

Table 1. Change content – Hungary vs. Israel

HRAS model subsystems		**Hungary**	**Israel**
Content – "What" changed	ESD principles	Implementation of	Implementation of
		– environmental consciousness	– environmental aspects: environmental literacy (i.e., knowledge, attitudes, and pro-environmental behaviors)
		– sustainable consumption	– environmental pedagogy: outdoor education and place-based education
		– local community values and problems	– whole-school approach to ESD
		– local environmental issues and problems	– change the terminology from Environmental Education to ESD
		– Revision of school curricula and other documentation according to ESD	
	Types of change: *Episodic change* (i.e., organizational change usually revolutionary, deep, discontinuous, and infrequent) and *Continuous change* (i.e., evolutionary, ongoing, and evolving)	– *Episodic change*: If a rapid change in ESD and SD culture happens in a school, there usually are other factors behind, e.g., a major infrastructural project or an infamous environmental damage	– *Episodic change:* Initially, some schools identified a need to change the content, context, and process of the entire educational system and implement a whole-school approach. This change was *revolutionary*, deep, and affected many aspects of schools (e.g., eco-school required changes to schools' curricula and budgets, and changes in the community)
		– *Continuous change*: Application is voluntary. Schools' engagement and some spare time and coordination are needed to fill the application form. The change is natural and gradual. However, in eco-schools' own oral history, a dedicated teacher who has a great impact on his colleagues appears in one third of cases	– *Continuous change:* After implementing the change, schools were encouraged to develop and to become more "green" to gain the second certification (i.e., eternal eco-school)

Table 2. Comparison of eco-school change process in Israel and Hungary

Criteria	Hungary	Israel
The main process to get certification	a. Eco-school title	a. Eco-school certificate
	1. Simple self-evaluation criteria	1. The commitment of the school community (school, parents, and student) to the process
	2. Application (sent separately)	2. Creating an action plan according to self-evaluation in the following criteria (next row)
	3. School and teachers commitment letter;	3. An external committee examine the school (includes meeting the schools)
	4. Formal evaluation of application and criteria (application-based)	4. Certification and the school accept 3000$
	The title is valid for 3 years.	
	b. Renewing the title	b. Continue eco-school
	After 3 years, by a similar application, with extended commitments, and with a report on the past 3 years.	3 years of implementation of the criteria and expanding the same criteria
	c. Eternal Eco-school title: after 7 years of successful eco-school operation, by application, criteria with a higher standard.	
The main criteria for getting certified – Sustainability achievements standards	A. School documents (local curriculum, work plan for the school year)	a. Curriculum plan – environmental studies
	B. School organization (leadership, group meetings, HR policy, green student council, etc.)	b. Sustainability action plan – to act in a sustainable manner, to conserve resources and to advance eco-efficiency
	C. Pedagogical work (14 different aspects offered, 7 must be chosen at least)	c. Communication plan
	D. School operation (33 offered, 5 must be chosen at least for new applicants)	d. Community engagement plan – long-term ESD action
	E. Communication (internal and web)	e. Leadership group includes parents, students, administrators, and teachers
	F. Cooperations (with other school and non-school partners)	f. Professional development for staff in the school
	G. Engagement in the local community and local environment	
	H. Specialties and school image	
	I. Freely chosen eco-innovations for the next 3 years	

Table 2. Comparison of eco-school change process in Israel and Hungary (Continued)

Criteria	Hungary	Israel
HRAS model subsystems – Process of change – "How" and "Why" (incentives)	A standing committee in Ministry of Education, which includes representatives of Ministry for Environment and non-governmental and academic representatives of ESD operated the application system since 2005	A standing committee in the Ministry of the Environment and Ministry of Education, which includes representatives from governmental agencies, NGOs, and environmental experts, publishes requirements for certification since 2004
	The certification system and the eco-school criteria were gradually refined	The committee evaluates school applications for green certification (school get $3,000)
	There are no direct financial incentives for schools to apply	After 2 years, schools can deepen their ESD and receive an advanced certificate for "continuous" green schools by involving all grades in the ESD process, by rationally using resources in all criteria, and by continuing to create pro-environmental behavior in the community (Ministry of Environment, 2010)

analyzed in both countries. In both countries, the process is similar in voluntarily approach, the existence of several different levels of eco-school certification, and criteria for certification (Table 2). Despite the fact that Hungary worked according to the ENSI's eco-school approach and Israel created its own process, the eco-school change processes operate in a similar fashion in both countries. One major difference between the countries relates to the monetary incentive, which exists in Israel but not in Hungary. In the Israeli system, both stages of eco-school certification the schools receive $3,000, whereas in Hungary, there is no direct extra financial support for certified eco-schools, although there are many other educational developmental projects in Hungary with financial resources allocated directly for school development and some of them could be used for the development of ESD work of schools too. Probably, the eco-school program is the only educational development program in Hungary that has been working without a constant direct external financial support for the school. It can be assumed that the driving force behind it is the teachers' sense of responsibility for the environment and for the future. In summary, it can be stated that the direct or indirect benefits of certification (e.g., money – in Israel – honor, respect, and prestige) encourage some schools to participate. The change represented by the eco-school process is based on the assumption that people change their actions and practices to align with their attitudes and norms. Moreover, people have to actively participate and be part of the change. Because being an eco-school is not mandatory for any school in the investigated countries, the assumption is that schools applying for eco-school certification will improve their ESD practice to fulfill the requirements of the certification.

Another important aspect of the eco-school process is the active participation of change agents and recipients. In this process, schools must actively choose to adopt change. They must engage with change processes, choose subjects to teach, and create their own environmental community projects.

Context of change – Outer and inner contexts

In our research, national-level factors were identified as especially important to initiate change in the educational systems. Therefore, the eco-school certification systems were considered to be the leading authority, and schools are considered to be as change recipients. This section will describe the outer context (global and international) and inner context (national and schools including leaders) of change.

The outer context for both investigated countries includes external factors (i.e., global and international) in the change that affects the development of eco-school certification systems (Table 3). For example, international interest in ESD as signified by adoption of Agenda 21 (UN, 1992), Rio + 10 (UN, 2002), and reflected in the UNESCO general educational (e.g., UNESO, 2016) and sustainability education strategic documents (e.g., UNECE, 2005), which includes global education and sustainability education and natural sciences education programs. These documents and processes influenced the implementation of ESD and the development of eco-school certification processes. Globally, in the beginning of the millennium, educational researchers started to focus on whole-school approach of ESD (EU, 2010; UNECE, 2005). It can be concluded that the global emphasis on the environmental crises led to global and international (the outer context) influences. These influences caused policymakers and NGOs looking for practices for implementation of local actions and concluded into the development of the eco-school certification processes.

The inner context in Israel and also in Hungary includes the national and school level (Table 3). At the national level, the interests in environmental degradation can be strengthened by increasing the number of articles presented by popular media that deal with environmental issues. Governmental and local authorities of both countries represent another important influence to schools by encouraging them to participate in the eco-school certification process. In Israel, the Ministry of Environment along with several other actors helps schools to implement the eco-school program. The Israeli Ministry of Environment has helped to lead this change in terms of financial investment and has invested more money than all other partners, including the Ministry of Education. On the other hand, interaction between schools and the Ministry of Education usually has a negative effect on implementing the eco-school movement in Israel. This is because the Ministry of Education is not always supportive of the change process, and sometimes, although it declares support, it does not act accordingly. Specifically, the Ministry of

Table 3. Change context – Hungary vs. Israel

HRAS model subsystems		Hungary	Israel
Context	Outer context (international level such as economic, market, global, and authorities)	UNESCO global education and sustainability education and natural sciences education programs and philosophies	Global influences for adopting ESD: Agenda 21 (UN, 1992), Rio + 10 (UN, 2002), and Agenda 2030 (UN, 2015)
		Eco-school as an OECD-CERI ENSI initiated idea	Authorities influences: Israel signed Agenda 21, and needed to present in Johannesburg ESD activities therefore started to implement the Green School Certificate
		UN DESD (2005–2014) and DESD GAP	
		UNECE Batumi Declaration in 2016	
	Inner context (national level such as: social, cultural, political, and media)	NGOs urge schools and the education system to learn more about nature, and to learn by community actions	Social – NGOs influence on ESD implementation by teaching ESD in schools
		Eco-schools and eco-school leaders are interested in maintaining their special recognition originating from their eco-school certification	Environmental degradation – the media, which started to deal with environmental issues, increased public awareness about the environmental crisis
		The educational central administration accounts and reports the eco-school network as an important ESD achievement of the country	Financial investment in ESD programs and the eco-school process, by the Ministry of Environment
		General sustainability consciousness and dissatisfaction derived from media	A school training program funded by the Ministry of Environment

Education usually recommends that schools participate in the eco-school program, without providing tools for schools to implement ESD programs. Furthermore, the Ministry of Education requested and later required that schools should to participate in many projects indirectly contradicting the eco-school program. For example, the Ministry of Education requires high achievement in national and international tests such as Programme for International Student Assessment, without requiring enough hours of ESD (Negev, Sagy, Garb, Salzberg, & Tal, 2008). Another barrier that hinders schools to implement the eco-school approach is the complicated bureaucracy, which discourages some schools from participating (personal communications).

The inner context for change in Hungary was to a great extent formed by a background institute of the Hungarian Ministry of Education, which was motivated by an intensive international educational researchers' network. Other actors in the inner context are NGOs that consult or guide school activities. The work of the background institute was supported for some years by European direct funds for improving the eco-school program. The environmental administration also supports a few environmental programs in schools. The European Social Fund and European Regional Development Fund supported a few improvements in eco-school programs, mainly in the field of pedagogical

materials and teacher training. These agents were part of the inner context that drove change. Another change driver in several cases was the application for eco-school certification of nearby schools, which affects other schools in the region as the certification can be considered to be a marketing advantage for schools.

Minor differences in application and implementation can indicate national influences. The criteria were created by schools and external experts in Hungary as well as by external experts in Israel. Later, the ministry became responsible for the criteria revision in education in both countries. There are criteria in both countries that are easy to implement (e.g., modifying the school documents, introduce waste separation, and decoration of the classrooms), and others that are hard to implement (e.g., improve the infrastructure or the offer of the school canteen in an environmental-friendly way). If there are differences between the countries, causalities can probably be described among infrastructural and cultural features.

Reaction to change – Reaction to ESD and eco-school implementation

Reaction to change relates to the way recipients – school leaders and the whole-school system – react to the change required for implementing the eco-school approach as a way for integrating ESD into educational practice. The following characteristics implied for both countries: the reaction to change can be different in the cases of the three types of schools: schools that adopted early, schools that adopted late, and schools that did not adopt. This "internal" organizational characteristic has impact on school culture and politics. One important internal factor in an organization is a leader who is deeply invested in the subject. Such an actor will help a school implement change more effectively. In Israel and Hungary, schools with engaged leaders in sustainability were those that modeled the eco-school program. This is one of the characteristics common among each school that was an early eco-school adopter. There are schools in both countries where there are only 1–2 teachers' commitments behind the eco-school program. Their individual qualities and their commitment can lead to eco-education in both directions: downward or flare-up. There are similar patterns of how Israeli and Hungarian eco-school change agents can motivate principals and other decision-makers to implement ESD. One or two teachers in a school are usually not enough for implementing their eco-school agenda, unless there are committed principals. Experience and leadership of school administrators and the benefits they perceive from the process are also important aspects of the reaction to change.

Another level of analysis could be observed according to the consequences associated with participation in change (i.e., reaction to change), which can be examined at the school leader level of the inner context. School leaders in both countries occurred to be a barrier to change in some cases, when they do not personally acknowledge the value of the

certification. However, many school leaders see the benefits for schools from the recognition associated with certification. Simultaneously, school leaders are often afraid of the time requirements and other practical constraints of the central requirements (like performing high achievement on competence tests and early school leaving), and they are also afraid that they will not be able to meet the achievement requirements set by the certification systems.

Another risk in Israel relates to the fact that eco-school certification may involve significant expenses and school leaders or local educational governing bodies are not always willing to take this risk, or do not have the resources to carry out the change. Administrators are often hesitant to spend money on outside resources, such as NGOs to implement ESD programs, if they do not receive direct benefit from this expense. Sometimes, without more external support, Israeli schools cannot afford to be certified. Furthermore, administrators who would like to implement ESD with its own staff often need to deal with a lack of experienced teachers in ESD, which creates challenges for schools that wish to implement this process. Moreover, in Israel, teacher resistance tends to increase as their role in ESD programs becomes larger. These are just some of the reasons why only 25% of schools in Israel have participated in this process.

During its 14 years of operation, the biggest achievement of the Hungarian program is the involvement of almost 30% of students (1,000 schools and dorms, 360,000 students). The running monitoring system proves that more than 80% of the schools reported a significant quality improvement in its ESD activities after joining the program. Schools reported a normal and continuous evolution and fulfillment of their eco-school work and commitments. School maintenance and school leaders are most supportive of the eco-school application and eco-school work. Even a quarter of parents are supportive to it. The most common complaint is that there is no possibility for environmentally conscious renovation or climate-related energy upgrading. They can best change their pedagogical practice and communication. Every school, including eco-schools, likes to follow its good practices and renews only 1–2 things in a school year (Könczey, Varga, & Saly, 2017).

Reaction to change was especially positive in those schools that participated in ESD before the eco-school process began in both countries. These schools exhibited positive changes in beliefs, feelings, school culture, and pro-environmental behaviors. In these success stories, positive change is observable throughout schools' communities. On the contrary, there are schools that would like to satisfy only wishes of the local or national governments by applying for the eco-school certification, and do not have a genuine desire to participate in ESD. In these schools, which are usually later adopters, changes in beliefs, school cultures, and pro-environmental behaviors are not very deep, and probably not enduring. These may explain the existence of many schools that applied for the eco-school

certification just once and have not continued the process later on. It can be stated that many of the change recipients (i.e., schools) implemented the change process (eco-school certification) because they were influenced by the context (i.e., national and local agenda), but did not fully adopted the ESD content and its change in pro-environmental behavior and works to some extent as stowaway eco-school in the system.

Discussion

The following SWOT analysis provides information about the strength, weaknesses, opportunities, and threats of the Hungarian and Israeli way of the whole-school approach as part of eco-school program implementation. An aim of this analysis is to give a framework for reflection of the above-presented results and another is to answer the research questions formulated in the beginning of the study. Providing HRAS insight about the possibilities of improving the implementation process of ESD is a third objective.

Content

From the viewpoint of content, the most important aspect of ESD is that it requires deep and continuous change in schools, in the whole educational system, and also in society (Lindberg, 2015). The deepness of the required change could be an explaining factor for more statements in the SWOT table (Table 4). If this deepness is taken seriously, significant extra work is unavoidable for schools. This extra work could easily generate a continuous feeling of frustration in many schools. This frustration could cause to accept a more superficial approach of ESD, especially if schools do not receive significant professional support for the change and compensation for their extra work. This superficial approach could appear in many aspects of the school life, but it is most often observable at the infrastructural developments of eco-school. The majority of the eco-schools has implemented selective-waste collection systems but just a few of them has taken more serious steps toward more sustainable infrastructures without extra financial resources. In a different level, teachers of a school react in diverse ways for the changes, and this diversity could make the change within the school uneven and at least partly superficial, e.g., deep changes in the science curriculum but no changes in the social curriculum of the school. In summary, the superficial approach to ESD as discussed above could also create uneven implementation of eco-school system in the school level. Some of the schools are deeply involved in ESD and others are not, which also create frustration among participants because they get the same certification.

The biggest challenge for educational policymakers is to develop processes and frameworks making the deepness of change required by the eco-school processes manageable for schools.

Table 4. SWOT analysis of eco-school implementation in Hungary and Israel

Strengths	**Weaknesses**
Involvement of the quarter of the schools	Extra work (which is not recognized enough) for applying schools and later for teachers coordinating the eco-school annual plan
Attracts all kinds of schools, administrators, and teachers	Lack of full in-situ and online monitoring system gives an opportunity for stowaway schools
Flexible framework for implementation (only Hungary)	Unstable support for the networks emerging regional and local network hubs (only Hungary)
State acknowledgment of ESD effort	Lack of flexibility in the framework for implementation (only Israel)
Raising respect for the ESD work in schools	The eco-school title itself does not lead to a real and deep change in every titled school (in school culture for example), it creates a change focusing on recycling
Emerging regional and local network hubs (only Hungary)	Except the $3,000 (Israel), the eco-school process is not including the budget for required sustainable infrastructures for real changes (e.g., solar panels, energy-saving, and environmental design of the school building)
Sustainable education knowledge and innovation centers emerging continuously from the best eco-school teacher communities	
Opportunities	**Threats**
Eco-school as ESD basis schools for implementation of whole school approach of ESD	Melting the network because of the diminishing motivation of members
Integrating the main messages and criteria of the Eco-school system into the state inspection system and so make them compulsory to apply for all schools	The network and the whole school approach of ESD lose its respect because of the growing number of stowaway schools
Change in the educational system approach for integrating diverse pedagogy and promote the education of the 21st century	Further increase of the network of eco-schools can cause an elimination of the title system. If everyone has the title, that means nothing anymore

Process

One of the aims of the eco-school certification processes is to initiate organizational change. Organizational change as it is known from the literature is not always successful in many organizations and schools as well. The eco-school movement is an example of a change process that did not reach all schools in the system in both investigated countries. In our findings, we see that in even many eco-schools the change is not deep enough and does not include the ESD characteristics of pro-environmental behavior and some eco-schools that do nearly nothing and surviving as stowaways in the eco-school systems in both countries (Fullan, 1993; Tubin & Ofek-Regev, 2010). On the other hand, there are a few almost perfect "whole-school" ESD schools without eco-school title. There are even cases when school principals are studying the criteria of the eco-school certification systems and lead changes in their schools accordingly without applying for the eco-school title because of extra bureaucracy.

In spite of these contradictions, the SWOT table shows that the process element is an important factor of the strength of the eco-school movements in Israel and Hungary. The process of eco-school certification is successful in many aspects; it helped to involve a significant amount of schools into the change process for ESD, attracts all kinds of school administrators and teachers, and raises the respect of the ESD work in schools. One of the key motivating and transformative aspects of the eco-school systems roots in their participative policy: participation is accounted on all possible levels. Students can participate in the process of their own learning from the selection of the focus of learning to the evaluation of their learning results and in Hungary they could even participate in the environmental decision-making processes by joining the Green Student Parliament movement (see Figure 5). On the level of the school staff participation means that each employee of the school could be involved in the development of the vision of the school. The main organizational change in Hungary on the school level, which demonstrates the participatory aspect, is the establishment of the eco-school working group in eco-schools, which coordinates the implementation of annual eco-school working plan and consists of different employees of the school. Participation on national level means that schools directly or indirectly through their feedbacks are involved in the development of the system of the national eco-school program, and could contribute to the development of the certification system. This participatory approach raises the motivation of the stake-holders and gives momentum to their transformative initiatives.

In summary, it can be stated that there are a growing number of evidence showing that this success of the eco-school certification processes has a great potential to initiate school changes on different level in ESD but have their own limitations. More than a decade of eco-school certification was not enough to reach the majority of schools nor in Israel nor in Hungary. The existing phenomenon of stowaway eco-schools also demonstrates that

Figure 5. Pupils participating in the session of a local Green Student Parliament – a participatory activity of Hungarian eco-schools for negotiating local environmental issues with local politicians

the process of eco-school certification itself could not be enough to mainstream and manage the implementation process of the whole-school approach of ESD in a whole national educational system. Therefore, other elements of the wider context should also support the aimed implementation process of the whole-school approach.

Context

The results of this study proved that in spite of the great geographical, political, and cultural differences, there are many similar elements of the context of eco-school movements in Israel and Hungary. The initial motivation for creating the eco-school scheme and the later development of them were accidentally and unexpectedly similar in the two countries.

The SWOT analysis has pointed out that the contextual factor is crucial for the survival and for the further developments of the eco-school systems in both Israel and Hungary. The threats identified by SWOT analysis are context-dependent to a large extent. The motivation of the school for applying for the eco-school title is determined by factors, which could not be affected directly within the application process. The motivation of schools will increase if the stakeholders of the educational system will expect the school to apply and will support the application efforts of the school. Contextual factors like the raising of environmental awareness of stakeholders and the establishment of a professional control mechanism to assess the practical work of eco-schools could help reduce the phenomenon of stowaway eco-schools and therefore decrease the possibility of losing respect and the consequent network meltdown.

One of the most interesting features of the analysis of the contexts of the two studied eco-school systems was the recognition how similar they are in spite of the differences of their history and of their national, political economic contexts, and educational organization. This similarity provokes the hypothesis that similar attributes could be found if other eco-school systems would be involved in the analysis. To prove this hypothesis is a task for further research.

Conclusions

At first glance from the result of this study, two successful eco-school systems can be seen in the two different countries. Both systems are run for more than a decade. Both systems have reached several hundred schools, providing them a motivating state-level recognition and acknowledgment of their high-level whole-school approach ESD work. The solid governmental background and the continuous presence of newcomer schools suggest that these eco-school systems may survive for another decades. However, the analysis revealed some weaknesses within the eco-school networks and pointed out that eco-school systems alone were not enough neither to scale up the whole-school approach of

ESD nationwide nor to ensure the deep changes needed for the success of ESD. Eco-school systems could be a useful tool for ESD implementation later on if eco-school teachers continue innovation, collective learning, and if they do not lose their credibility. To achieve this continuous renewal of the basic components of the eco-school movements, a critical review of eco-school certification processes and criteria is needed. The critical review should focus on strengthening elements of eco-school movements, which can contribute to deep organizational change in schools.

From the educational policy perspective, eco-school systems have a few very strong positive characteristics in both studied cases. They proved to be very attractive for decision-makers. In some cases, they have even changed the attitude of policymakers, as the very complex issue of ESD has been transformed into manageable official processes producing quantitative and easily communicable results, proofing the commitment of the governments toward ESD at international level. Briefly, eco-school systems create high visibility for ESD from teacher level to international policy level.

Because of this multilevel existence of the eco-school movements, the content of the eco-school concept should be redefined on all involved levels.

If schools just follow the central guidelines without their own reinterpretation of the concept, it leads to a superficial adaptation of the eco-school concept and so a lack of motivation for deep implementation of ESD principles. Although this is not the intent of the eco-school approach, this superficial adaptation could also be considered a better-than-nothing solution of implementation of ESD in schools.

Our results are consistent with the results of previous studies (e.g., Hope, 2005) that also pointed out that to reach a deep organizational change there must be a person, a "change agent" in each school dedicated to the whole-school approach of ESD. These principals or committed teachers are the "cornerstone" of the change in their schools and ministry of education or regional authority of education in Israel and in Hungary are providing help for the work of these change agents by running the eco-school systems.

A combination of different support and control mechanism is suggested to further increase the effectiveness of the implementation of ESD in the educational systems:

- beside certification process enhancing networking among eco-schools,
- monitoring of whole-school ESD performance of all schools and teachers,
- best-practice database and teaching aid development to disseminate the practices of best performing eco-schools.

All three proposals would recognize the role of change agents and so support their committed work.

However, our findings suggest that running eco-school systems should not be the only way to fully implement ESD in our educational systems; ESD is a way to reduce the environmental crisis and eco-school systems are useful tools for ESD implementation in schools.

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All authors take responsibility for the integrity of the data and the accuracy of the data analysis.

Ethics

The study procedures were carried out in accordance with the Declaration of Helsinki. The Institutional Review Board of Kibbutzim College and the Hungarian Institute for Educational Research and Development approved the study.

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Which ways of evaluation of education for sustainability is acceptable for Hungarian teachers?

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Abstract

By what criteria and how can the efficiency of education for sustainable development (ESD) be assessed or measured? Theoretical and political definitions of teacher competencies for ESD are only the first steps in the implementation process of these competencies throughout the educational system. If we want to develop an effective evaluation system of ESD, a diagnosis is needed about which ways of evaluation are accepted by teachers and which competencies needed further developments. Our research has been conducted to map teachers' views about the possible ways to evaluate ESD. An online questionnaire was used to gain data about teachers' view on different types of ESD evaluation. On the basis of the results, a three-level ESD evaluation system seems generally and professionally appropriate: (a) introducing ESD competencies in the mainstream teacher evaluation processes, (b) initiating awards and other appraisal system for innovative ESD teachers and schools, and (c) periodic external assessment of pupils' and teachers' preparedness of sustainability-related issues.

Keywords: sustainability education, teacher competencies, internal evaluation, external evaluation, whole-school approach

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Introduction

A growing amount of evidence indicate that without significant changes in the operation of societies, human activity on the Earth cannot be sustained without global disasters in the long run. However, evidence itself is not enough even to initiate social changes, not to mention the realization of changes. It is more and more obvious that scientific knowledge alone is insufficient for responding sustainability challenges societies dealing with. There are two big steps from evidence to social changes at least. First, evidences have to be communicated to society. Second, new ways of operating the society as well as encouraging and ensuring sustainable lifestyles should be developed and introduced. Education has crucial role in both steps. This is reflected in the Sustainable Development Goals (SDGs) adopted within the Agenda 2030 by the United Nations (UN, 2015) where, as Mika and Kiss have stated, in addition to SDG 4, which is entirely about education, six additional SDGs refer to education or its synonyms (Mika & Kiss, 2018).

Many authors and organizations indicated that education is paramount for the achievement of all SDGs (e.g., UNESCO, 2017). Education for sustainable development (ESD) can contribute to achieving the SDGs by, first, developing cross-cutting sustainability competencies needed to face the many different sustainability challenges and to relate the different SDGs to each other. Second, ESD can provide specific cognitive, socioemotional, and behavioral learning outcomes that enable learners to deal with the particular challenges of each SDG. We understand education not merely as instruction, but rather as a process of involvement in the process of future orientation, future planning, and creation of a sustainable future (Mathar, 2013).

A lot of theoretical work (e.g., Néder, Saly, & Szentpétery, 2014; Sterling, Glasser, & Rieckmann, 2017; Wheeler, 2000) have been carried out in the new millennium to identify teachers' competencies and school-operating processes, which are needed to communicate the messages of sustainability to learners and prepare them to take an active part in the sustainable transition of the society. One of the most influential models was developed in the international collaboration of several teacher-training institutes and other stakeholders in the Curriculum, Sustainable development, Competences, Teacher training (CSCT) project. The main output of the CSCT project was a conceptual framework for ESD and a handbook, containing competences and contents for a curriculum for ESD (Sleurs, 2008). Beside the theoretical developments, international educational policy-makers also recognized the need for teacher competency definitions related to ESD, and in 2012, the United Nations Economic Commission for Europe (UNECE) defined a set of ESD teacher competencies (UNECE, 2012). On the basis of this political development, educators started to operationalize the competency models by identifying detailed learning outcomes, which give a detailed description of the expected result of the educational process for ESD competencies (Rounder Sense of Purpose, 2018).

We should however reflect on the fact that in spite of the aforementioned theoretical, political, and implementation efforts, a recent literature review of 60 articles about ESD competences found that it is so hard to describe the complexity of ESD that "*the literature is still dominated by 'laundry lists' of competencies rather than conceptually embedded sets of interlinked competencies. But even often under different names there is a consensus about the main domains of ESD competences*" (Sterling, Glasser, & Rieckmann, 2017). On the basis of the most distinct teacher competencies for sustainability (interdisciplinarity, critical thinking, global understanding, dealing with locally relevant issues, supporting social decision-making, supporting learning by doing, and teaching about adaptation possibilities for environmental challenges), we pointed out that Hungarian eco-school teachers see some of them as non-important, very difficult to realize, or even non-existing (Könczey & Varga, 2017). These results demonstrated that there is a significant need to develop ESD competencies of Hungarian teachers.

For any developmental process of teachers' ESD competencies or schools' sustainability education practice, the development could start on the basis of a diagnosis gained from an evaluation process. Therefore, in this study, we try to map which methods of evaluation of ESD are accepted by teachers in Hungary and so could be easily implemented, and which are rejected by them and so their implementation needs a special attention. This information could help the development and implementation of a nationwide ESD evaluation system.

Our evaluation approach is based on Mayer and Mogensen's sociocritical and Patton's developmental evaluation paradigms. The sociocritical paradigm considers the evaluation process as a discussion between the evaluators and the subject of the evaluation. The aim of the evaluation in this paradigm is to continuously and cooperatively improve the educational practice (Mayer & Mogensen, 2005). The concept of developmental evaluation emphasizes that the systems and processes of any social sector has to change because of the changing of the society. Therefore, evaluation processes should not simply judge the actors, systems, and processes of the society, but through a continuous feedback mechanism supporting the continuous social innovation (Patton, 2011). Evaluation plays an enormous role in the teaching-learning process. It helps teachers and learners to improve the process and outcomes of teaching and learning. Evaluation is a continuous process and a regular exercise in school life. Besides the presumable improvement in teaching and operation, it provides a kind of accountability to the society, parents, and to the education system. Although these statements are evident, there is a lack of systematic evaluation of ESD work of the Hungarian teachers and schools.

Another argument for the development of the evaluation system of ESD is that the current educational systems are reproducing the current, unsustainable economic, and social processes. A new, more sustainable model of the society requires new types of

educational approaches; otherwise, stakeholders of schools cannot contribute to the necessary economic and social changes.

Beside evaluation is a starting point of any development process, evaluating teaching and learning gives opportunity for recognizing and rewarding effective teaching, as well as systemic and resilient learning innovations. If well designed, teacher appraisal and feedback systems can be used as a tool to increase teacher effectiveness and achieve better student learning outcomes. Evaluation can help to increase the focus on teaching and teachers' professional learning (OECD, 2013). This study reveals educators' opinion of evaluation methods aiming at education for sustainability.

Methods

Hungarian teachers' and schools' ESD-related thinking is regularly studied in different researches by the Hungarian Institute for Educational Research and Development. This paper gives an overview of some results of a research considering teachers' view of ESD. As the whole-school approach is the recognized best practice in ESD (see, e.g., Mathar, 2013), we have sought acceptable ways of evaluating ESD among schools that apply this approach, i.e., eco-schools. In Hungary, a quarter of all schools are eco-schools.

The data collection was conducted in January–February 2019 as an online questionnaire for Hungarian eco-schools. This paper is focusing on the part of questionnaire dealing with the possible methods of evaluation of ESD, namely the results collected by the following main question: *What do you think, what kind of method has to be applied to evaluate schools ESD practice? (Please decide for all methods if it is applicable or not applicable for evaluation. In the textbox below, you could also provide your own suggestion and arguments.)*

The questionnaire offered several educational evaluation opportunities and free cells for answering the question on three levels: school level, teacher level, and student level.

The options offered are shown in Table 2, but it is important that schools were able to respond free text to each level of assessment. A total of 1,005 questionnaires were sent to which 742 answers received. Table 1 shows the descriptive data of the participating schools (Table 1).

Answers of schools with less than half student population than their capacity (less than 50% occupancy, $n = 65$) were omitted from further analyses because their respondents were extremely rarely consider any kind of assessment as "applicable" probably due to the extreme existential threats caused by the missing student population; therefore, data of 677 schools were involved in the further analysis.

Table 1. Descriptive data of schools answering the ESD evaluation questions in February, 2019, Hungary (n = 742)

Variable	Distribution
School size category	small 31.2%  below 220 pupils, below 120 pupils, below 130 students, below 175 students medium 54.8%  primary schools dormitories vocational schools grammar schools large 14.0%  above 700 pupils, above 335 pupils, above 520 students, above 510 students
Occupancy (percent of the capacity of the school filled by pupils)	8.8%  below 50% 36.9%  50% - 75% 54.3%  76% - 127% Except otherwise stated, data of schools with occupancy below 50% are omitted from the following data and analysis from this point
Duration of whole-school ESD practice (eco-school age)	Average = 7.17 years *SD* = 4.52 Minimum = 1, maximum = 14 years
Respondent's experience in the school	9 years or less: 24% 10–24 years: 34% 25 years or more: 32% No answer: 10%
Respondent function	Leader, principal, vice principal: 28% ESD group leader: 29% Other teacher: 25% Non-teacher staff: 1% No answer: 17%
The respondent is a leader or there is a leader among the contributors	"No": 46%; "Yes": 54%
School type (a school can serve several levels)	Primary: 79.5% Secondary: 24.5% (within this, grammar school: 12.6%, vocational grammar school: 14.6%, vocational school: 4.0%) Dormitory: 9.9% Special needs education: 5.0%
Owner of the school	State (educational authority): 90% Church: 7% University: 2% Others: below 1%

Data were requested as to who was involved in the formulation of the responses (respondent support). On average, 10 people assisted in the responses with a high standard deviation. About 30.1% of the respondents worked alone. In the remaining cases, the following main groups were involved: teacher: 77%; leader: 43%; non-teacher staff: 32%; eco-school team: 23%; pupil: 28%; parent: 17%; teacher supporting student council: 13%; external assistant: 4%. Fifty-four percent of the answers were given by or with the involvement of a leader.

Results

Accepted and non-accepted evaluation methods

The evaluation methods offered in the questionnaire are displayed in Table 2. The following options are accepted by the majority of the respondents: document-based evaluation (e.g., evaluation the pedagogical program or code of rules of the school), evaluation of the visual appearance or decoration of the school (green image), teachers' engagement, intensity of learners' engagement, and the existing internal self-evaluation systems. The following opportunities are not accepted (considered as non-applicable) by the majority of the respondents: evaluation by carbon and water footprint of the school, assessment solely on the base of evaluating managerial work.

Examined by factor analysis, we found autocorrelation of some aspects and that there are aspects that explain the variance of the generated factors only to a negligible extent. As a result, some aspects (1a, 1b, 1c, 1f, 2b, 3b – Table 2) are omitted from the further analysis.

To explore the pattern of respondents' thinking on ESD evaluation methods, we grouped cases by a set of multiple cluster analysis using answers as dummy variables and examined the characteristics of the created groups. Gradually leaving out items that have little effect on the differences in responses, some groups have become visible. Respondents are clearly divided into two different groups, depending on whether or not they accept external evaluation of teacher (2d – Table 2) and external evaluation of students (3c – Table 2) as an applicable method for evaluation of the quality of ESD work in the school. The other evaluation criteria offered have a decreasing grouping power in the following order: 2a and 1h; then 1e, 1g, and 1j; and then 2c, 1d, 1i, and 3a.

The two clusters are called (a) External Evaluation group (EE; n = 288) and the only (b) Internal Evaluation group (IE; $n = 283$). There is a clear difference between groups EE and IE in terms of assessment, at least when it comes to external measurement. Among the schools belonging to the group IE, even the item 2a – an obligatory, but locally managed internal teacher evaluation system – is less accepted than in IA group ($\chi^2 = 11.558$, $df = 1$, $p = .001$). The group EE is not only characterized by more positive responses to item 2a,

Table 2. Suitability of each potential evaluation criterion according to responding schools

Level	Potential evaluation criterion		Frequency of "aspect is suitable" in answers (%) ($n = 543$, incomplete records omitted)
School evaluation	1a. Analysis of the school pedagogical program if its vision clearly includes ESD at least for 3 years		82
	1b. Analysis of the code of rules of the school: if it includes environmental rules for all stakeholders of the schools		88
	1c. Measurement of the school's carbon footprint		33
	1d. Measurement of the school's water consumption		45
	1e. Measurement of the school's ecological footprint		58
	1f. Assessment of school's visual appearance (decoration, homepage, etc.)		93
	1g. Self-evaluation by an ESD school score system		63
	1h. Annual QA measurement of stakeholders		59
	1i. Exclusively by the evaluation of the principal		13
	1j. By the point achieved by the school in the eco-school application		56
	Other	Within the 121 coded responses, more than third offers self-evaluation and using data about involvement in ESD activities One tenth about internal measurement	
Teachers' evaluation	2a. Using and modifying of the existing internal and obligatory evaluation system of teachers		42
	2b. Evaluating teachers' participation in the work of the ESD or eco-school working group of the school.		87
	2c. Evaluating teachers' participation in ESD in-service training courses.		49
	2d. National teachers' test		50
	Other	More than third of the coded 132 free text responses deals with self-evaluation and data about involvement in ESD activities. One tenth about internal and external measurement	
Learners' evaluation	3a. A textual assessment of pupils preparation for, and participation (attitude) in sustainability tasks in accordance with the school's policies, program, and work plan		61
	3b. Diversity of engagement in sustainability related assignments (e.g., active in at least three different assignments)		81
	3c. National pupil competence test (e.g., by modification of existing tests by including ESD aspects)		50
	Other	More than third of the coded 123 responses mentions pupils engagement (reach and activity). More than one tenth of responded mentioned two other aspects: by rewarding outstanding performance (i.e., with a preliminary unspecified set of criteria) and internal measurement as assessment	

but has also been not so refusing to schools' water footprint and ecological footprint (1d, $\chi^2 = 13{,}921$, $df = 1$, $p < .000$; 1e, $\chi^2 = 7.104$, $df = 1$, $p = .008$) and more accepting to regular institutional quality assessment (1h, $\chi^2 = 15.512$, $df = 1$, $p < .000$) as part of a future ESD evaluation.

Secondary schools together ($\chi^2 = 3.994$, $df = 1$, $p = .046$), and especially grammar schools were more likely to belong to group EE ($\chi^2 = 41.675$, $df = 1$, $p = .031$) than group IE. Concerning the owner of schools, all five private schools and the majority of church schools were found in group EE ($\chi^2 = 12.519$, $df = 9$, $p = .181$).

Of the strongest clustering factors (2d and 3c), item 3c is more important. This is indicated by the much larger difference between criteria 2d (national ESD teacher test) and 3c (national pupil competence test) when the answers of middle- (occupation rate between 0.5 and 0.75) and high-saturated (occupation rate above 0.75) schools clustered together, compared to the difference in the relevances of criteria we have got when clustering the answers of only high-saturated schools. In other words, within middle-saturated schools, the dissection between schools accepting or rejecting external student ESD testing is not so definitive than between schools accepting or rejecting external teacher ESD evaluation. This result suggests that student external test is seemed as the least easy-to-accept way of ESD evaluation, which could be accepted by schools if they face no existential threats at all.

No other significant differences were found within the background variables; thus, we can state that evaluating ESD with external evaluation methods is acceptable about half of the sample, with the exceptional positive attitude of grammar schools toward external testing; meanwhile, the response to external measurement of pupils is strictly controlled by the threatening emptiness of the school. Otherwise, the response to any external ESD measurement may depend on organizational culture of the school.

Free text answers

The free text answers, which were provided by 132 respondents about their views on ESD evaluation, were grouped according to their main messages. Interestingly, a significant group of respondents, more than 10% of those who gave free text answers, expresses the opinion that ESD is not worth to measure, because measuring itself reduces the efficiency (time and commitment) of teachers, especially if there is no any further consequence of assessment. The following statement is illustrating the view-point of this group:

> "*In our opinion, the whole evaluation system is formal, . . . and inadequate to achieve these goals.*" . . . "*Teacher evaluation is just a storefront. Anyone who wants can do it*

> *anyway" . . . "We should reduce the burden on teachers, they would do better on sustainability!*"

Other answers indicate assessment as something very difficult to standardize, to make it comparable, considering especially institutions for special needs, but the simple rural–urban situation also means significant differences in school opportunities. This group often considers evaluation as an external pressure for environmental awareness as illustrated in the following quote:

> *There are too many reviews lately and from too many sides. It is becoming counter-productive. Environmental awareness is an individual decision for everyone. You can convince, enlighten, but not worth commanding.*

The free text answers could be categorized according to the clusters presented above. We present some interesting or characterizing sentences for both groups EE and IE of those who accept the need for ESD evaluation with external measurement (group EE) and those who accept ESD evaluation without external measurement (group IE).

Internal Evaluation group. "*We would include an indicator fit to the local context (geographical and social contexts) measuring the extent to which the school contributes to the sustainability of the settlement*."

[By] "the environmentally conscious behaviour of his/her class."

[Could be appropriate] "Defining tasks by student group based on age level, which could be linked to a possible scoring system. Develop a task bank for student groups, adopt it at class level [and then periodically evaluate it"

External Evaluation group. "Individual textual evaluation makes no sense if there is no parental or institutional expectation or obligation behind it . . ." therefore: "nationwide targeted measurement is appropriate."

"A competency and indicator system related to environmental protection and sustainable development should be integrated into the teacher portfolio and the teacher competencies. School inspectorates should pay more attention to school environmental education!"

Conclusions

The results presented in this study have revealed that teachers and schools have very complex and diverse opinions on how ESD could be evaluated. An interesting finding is that the diversity of these opinions could be explained to a great extent by the characteristics of the schools. For example, schools having significantly fewer pupils than their capacity and so facing existential threat of closing are overwhelmingly negative – about any kind of evaluation of ESD. Existentially slightly threatened schools accept the external evaluation of

teachers more than the external evaluation of students. Secondary schools and especially secondary grammar schools are more open for evaluation by external evaluators probably because of the usual external evaluation features like students' final exams at the end of their grammar school. Grammar schools are more used to external evaluation methods, which are much more less present in primary schools.

The samples were divided into two groups by their opinion about internal and external evaluation methods. This result is specially important taking into account the fact that, since 2013, a competence-based evaluation qualification system of teachers has been operating in Hungary, which is a basis for teacher's career promotion having a significant effect on teachers' salaries too (Symeonidis, 2019). The 9 professional teacher competencies[3] are assessed by the curriculum supervisors on the basis of 66 indicators, including classroom observation as well, but based mainly on the teacher's portfolio of her/his own documents and teaching reflections. Every 5 years, teachers' work is evaluated by external experts contracted by a central Inspectorate. Evaluators use a set of 66 indicators of the 9 general teacher competences. ESD competence has been introduced as a new competence to this competence list recently, so from 2020 teachers' ESD competences will be evaluated within this system.

It should be noted that one significant group of respondents prefers an evaluation system where an internal self-evaluation system operated by the schools is combined with external evaluation methods (e.g., attitude and knowledge measurement of pupils, parent questionnaires, and national testing). As this combination eventually describes well the teacher evaluation system recently operating in Hungary, this result indicates that the introduction of the new ESD competence into the recent system probably will be well received by a significant group of teachers.

On the other hand, as there is also a significant group of school refusing any kind of ESD evaluation, and other group resisting external evaluation of ESD, a serious preparation process is required to prevent the negative consequences of the foreseeable resistance to evaluating ESD competences of these schools and teachers. Frustration of stakeholders, decreasing trust in the operating teacher evaluation system, increasing the number of

[3] The nine teacher competences in Hungary: (a) science, subject, and curriculum knowledge; (b) planning of pedagogical processes; (c) support for learning; (d) development of the learner's personality, individual treatment, and appropriate methodological skills; (e) supporting different sociocultural aspects of student groups and communities; (f) continuous evaluation and assessment of pedagogical processes and students' development; (g) (NEW COMPETENCE, since 2019) skills in environmental education, reliable representation of the values of sustainability, and the way of communicating sound environmental attitudes; (h) communication and professional cooperation as well as, problem solving; and (i) commitment and responsibility for professional development, see in Hungarian at: https://www.oktatas.hu/pub_bin/dload/unios_projektek/kiadvanyok/utmutato_a_pedagogusok_minositesi_rendszereben_6.pdf.

teacher avoiding career promotion, or leaving the teacher career could be the most serious consequences of the introduction of ESD competence within the teacher evaluation system without a sophisticated preparation process. The resistance could diminish if the schools are ensured that ESD evaluation could not be used against them in any way.

There were three evaluation aspects rejected by the majority of all respondents. ESD evaluation based on hard environmental data, such as carbon footprint, water footprint, and principals' performance assessment, seemed to be impossible to be integrated into the evaluation systems of ESD of Hungarian schools, because teachers and especially principals feel that they have almost no control on energy and water systems of their buildings and would not submit themselves to an ESD assessment solely based on principals' performance. Therefore, it would not be fair to evaluate ESD on data that schools and teachers could not have an effect on or on only by the performance of the school leader. This result suggests that reconsideration of the role of the principals and teachers in the maintenance of schools is required, if we would like to integrate the evaluation of the environmental outcomes into the evaluation system of schools. In addition, it also confirms that the whole institutional ESD cannot be evaluated as a single managerial job.

On the other hand, the evaluation of school documents (annual work plan of the schools, lesson plans, etc.), the data about participation in ESD-related activities, and the data about ESD-related communication activities (press releases, parents meetings, etc.) are generally accepted by teachers as a relevant way of evaluating ESD. These are presumably convenient and safe evaluation methods, which simultaneously involve a lot of work, and their efficiency on ESD outcomes is questionable.

Respondents express some overall concern about evaluating ESD competences of teachers. Unless ESD has been a part of the Hungarian National Core Curriculum for decades, there are teachers still arguing against the evaluation of teachers' ESD competences, because they consider it a non-compulsory extra work of dedicate teachers. Other argument against the introduction of any evaluation system is that the costs of development, implementation, and running such a system will give significant returns to the educational practice. These results show that a participatory development method and a careful planning are needed for the development of any evaluation system of teachers' ESD competencies, pupils', teachers', and schools' ESD performance to avoid teacher's resistance and to find a cost-effective and more teacher-friendly way of evaluation, which could significantly improve the quality of ESD in schools.

One of the most teacher friendly ways of evaluation, which was often suggested by respondents, is to introduce a teacher appraisal system. It should be based on a teacher professional profile (or teaching standards), i.e., a clear and concise statement of what

teachers are expected to know and be able to do. Teaching standards should reflect the sophistication and complexity of the knowledge and skills that teachers need to achieve student learning objectives at different stages of their career. They also need to recognize expertise developed on the job, be informed by research, and benefit from teacher involvement in their development. Teaching standards, different levels of performance, and appraisal criteria need to be clear to all those involved in teacher appraisal (OECD, 2013).

Taking all of the aforementioned aspects into consideration, the following evaluation methods seem feasible in the medium term.

1. Transformation of the existing pedagogical evaluation systems on individual, and school levels to focus them on ESD competences, and prepare teachers, principals, and evaluators to apply the renewed systems.

2. Operating a system of acknowledgment and reward system for innovative ESD educators to facilitate continuous innovation of ESD.

3. Periodic external assessments, with experimental and awareness measures, especially for evaluating student groups and teacher groups.

One obvious limitation of this study is that there are no data on student level about the effect of teachers' ESD competencies on pupils learning. It is due to the fact that at the moment there is no nationwide pupils' measurement with ESD element in Hungary. As there are promising international initiatives, e.g., PISA global competencies (OECD, 2018), to introduce the ESD element examples in pupils measurement, we could hope that we will be able to complete the range of this study in the coming years.

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Both the authors take responsibility for the integrity of the data and the accuracy of the data analysis.

Ethics

The study procedures were carried out in accordance with the Declaration of Helsinki. The Hungarian Institute for Educational Research and Development approved the study.

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An investigation of the impact of the scholarship types on academic procrastination among the university students

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Abstract

Introduction: The present research is about scholarship as a practice of academic award or financial assistance and support for students to their further education and to enable them to perform excellently. Researchers have dealt with the concepts of scholarship and academic procrastination but separately. *Methods:* This is the first study to investigate the impact of the scholarship on academic procrastination among the students. The study adds to the literature by exploring scholarship impact on academic procrastination through a unique sample of students of a private university as a control group. The students were grouped into four categories according to their scholarship status, and questionnaires measuring academic procrastination were randomly distributed across the participants of 205. *Results:* As hypothesized, scholarship was found to be significantly impacted academic procrastination among the students. Recipients of full scholarship with monthly stipends were found with the lowest level in all selected areas of academic procrastination. On the contrary, non-scholarship recipients among the students were reported with the highest values of academic procrastination in all targeted domains of this study as outlined above. *Discussion:* Mere assessment of the two outcomes indicates a positive impact of the scholarship on academic procrastination. Accordingly, the study tested whether there is an impact of the scholarship on academic procrastination regarding gender. It was confirmed that female students procrastinate slightly higher than male students. In terms of generalizability,

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the approach in which the data of this study were gathered and also with the considerable size out of the population make the findings generalizable.

Keywords: scholarship, scholarship types, impact, academic procrastination, Khazar University

Introduction

In contemporary ages, there is evidence to buttress the fact that investigations dealing with scholarships or financial aids and academic procrastination are the subject of widespread attention but discretely. The present research is about scholarship as a practice of academic award or financial assistance and support for students to further their education and to enable them to perform excellently. This is the first study to investigate the impact of the scholarship on academic procrastination among the students. According to Pascarella and Terenzini (2005), financial assistance, particularly for needy students, was found advantageous and positive on their academic accomplishment and perseverance. Scholarships are granted following the various criteria (Goroshit, 2018); these criteria are strictly attached to the values and purposes of the founder cum donors of the grant.

For instance, one of the well-known and the largest state merit-based scholarship programs is the "Helping Outstanding Pupils Educationally" (HOPE) in Georgia, which came to existence in 1993. The main criterion for HOPE scholarship program assessment is B average equivalent to 3.0 out of 4.0 scale in required curriculum subjects (Mumper, 1999). Millea, Wills, Elder, and Molina (2018) emphasized that institutional scholarships are often distributed to the students in accordance with academic merit or for athletics, whereas government-supported aid, loans, or grants are naturally meant for need-based. A need-based scholarship was identified for having the highest correlation with less privileged families in terms of college accessibility and persistence (St. John, Hu, Simmons, Carter, & Weber, 2004; Wetzel et al., 1999).

However, for instance, Coonrod (2008) projected scholarship as a technique to discriminate price among the students in institutions. Similarly, another study by Kim and Seo (2015) confirmed that financially buoyant students pay more at the college, whereas the indigent students pay less (Pindyck & Rubinfeld, 2005). In some cases, scholarship, grants, and financial aid are intertwined. Sometimes, financial aids are distributed as scholarships, grants, and or loans by policymakers and universities (Millea et al., 2018). Scholarship is an advantage, given that the scholarship or grant money is not required to be repaid (Toby, 2010).

Scholarship is one of the obvious advantages of getting rid of economic and financial anxiety during the students' academic career. Having a scholarship will allow students to

lessen that inevitable financial burden if it cannot be eliminated (Gross, Hossler, & Ziskin, 2007). Relatively, earlier studies have essentially discovered a strong and multifaceted impact of the scholarship on students' success in general, but specifically on academic procrastination requires more investigations. A clear result of scholarship being highly effective has been recognized within the higher education literature (Robbins et al., 2004).

As expected, a scholarship-based student does not need to work at all to support himself or must work less for fewer hours, which may have promoted more academic and social engagement during enrollment (Ramsey, 2010; Trent & St. John, 2008), unlike other students studying without any assistance or scholarship. Therefore, lessened financial and stress can be explained as having more time and energy to study, also to carry out all the academic-related tasks.

A study argues that engaging in work while enrolled in university has little effect on academic performance (Nonis & Hudson, 2006), while working in another research was regarded as an inhibitor toward students' academic excellence and retardation to completion of academic degree promptly (DeSimone, 2008; Stinebrickner & Stinebrickner, 2003). Having more and enough time cum energy to study can, in turn, facilitate students' academic assertiveness and enhance their higher and strong motivational achievement. DesJardins, McCall, Ott, and Kim (2010) proclaimed that the provision of students' financial aid plays an income increase role to students by suppressing financial obstacles. Such an income relief and inspires students to avoid or reduce working hours during their study at the college, thereby liberating time to other academic and non-academic activities.

Subsequently, other studies buttressed the notion that students enjoying scholarships, especially grant aid, work less, and alternatively spend more time on valuable activities and experiences outside the classrooms, possibly attaining higher course grades and higher rates of academic eagerness and completion than their colleagues who work more hours (Boatman & Long, 2016). Researchers, such as Hamrick, Schuh, and Shelley (2004), affirmed that distributions of capital and funds across functional groups imply a university's priorities and can accelerate substantial influence on student outcomes (Rozental, Forsström, Tangen, & Carlbring, 2015).

Importantly, Robbins et al. (2004) have made immense contribution by conducting the utmost extensive meta-analysis to date on the prognosticators of university students' victory. By manufacturing old theories of educational persistence and motivational theories from the psychological point of view, literature highlights the significance of contingent impacts, such as financial aid (Tinto, 1975). It could have an absolute effect on the academic motivation of the student, especially, in a case when the sustainability of the scholarship depends on student academic success. Therefore, such a student needs to maintain a scholarship in the short term or allows the repayment of loans in the longer

term. A scholarship could strengthen a student's integration into the community, if the form of provisions such as work–study or athletic scholarship leads the student to connect with a huge number of individuals across university ground (Adelman, 2006).

Financial aids (scholarships) differ prominently in the range of the amount they offer. In most cases, full coverage of tuition fees is rarely awarded to the lucky few. Some of these scholarships cater only for the expenses of conference trips or other such as accommodation and textbooks. Remarkably, Alon's findings signify a pattern revealed in other researches that the natures of scholarship may affect the affiliation between scholarship and academic achievement and account for certain variation across studies.

However, in another research, Gansemer-Topf and Schuh (2005) confirmed that university scholarship positively influenced retention and graduation rates only for schools with low admissions selectivity. They claimed that universities admit a higher number of applicants that were most likely to enroll low-income candidates who have a greater need for scholarship.

However, education nowadays is seriously facing many impediments, in which academic procrastination can be considered as one of the major impediments. Given that, almost every student engages in this. Thus, it is a retardation for educational advancement. Academic procrastination has to do with time, and the students' ways of allocating their times can either directly or indirectly influence their academic and non-academic retention in the college (DesJardins et al., 2010). The researchers further outline the common choices students face in the college: to spend their time focusing on reading and studying, working for pay, or taking part in extracurricular events. Evidence suggests that academic and social integrations together with institutional commitment are described as the major three areas of integration for student engagement in the college, and that students who are academically and socially connected to the institution have tendency to stay enrolled and succeeded than those who are either academically or socially disconnected (Kuh et al. 1991; Tinto, 1975).

Academic procrastination is one of the five categories of procrastination outlined by Milgram, Batori, and Mowrer (1993). At present, investigations focusing on procrastination and academic procrastination affirmed that procrastination has been believed to have a long history as it affects anybody that has blood running in his veins. Starting from industrial revolution era, Samuel (1751) described the procrastination as one of the general weaknesses, which, even with the instructions from moralists, and the dissent of drive, conquer either a greater or lesser degree in every mind.

Works have been carried out investigating the impact of the scholarship on academic success (Gross et al., 2007), performance, and achievement of the students. However, little

work has investigated the impact of the scholarship on academic procrastination of students (Hamrick et al., 2004). No work has been conducted to investigate the impact of the scholarships on academic procrastination. This study is important as it contributes and adds to the literature by investigating scholarship impact on academic procrastination of the students.

Theoretical Background

Basically, academic scholarship has become a global trend in academic settings in general. It plays a crucial role in making education affordable for the students, especially those from less privileged families (Coonrod, 2008). Thus, considering certain criteria that vary from an institution to another; individuality influences how the institutions charge their academic tuitions and award their scholarships.

Despite that academic procrastination has received thorough attention from many researchers, it is equally important to declare that no study has yet investigated the impact of the scholarship on academic procrastination. This can be attributed to the fact that prevalence, areas, and reasons are found to be concentrations of most researchers (Hooda & Saini, 2016).

It has been assumed that financial stress is a foremost stressor among undergraduate students (American College Health Association, 2013). Working to suppress financial stress can lead to students' academic procrastination, as students may experience serious stress, while striving to maintain a balance justification between their academic and work responsibilities. For the past few decades, numerous traditional theories were pinpointing the fact that students tend to work and work for a considerable number of hours (Scott-Clayton, 2012). Hence, numerous students without scholarship need to work to meet up with their payments for the college and living expenses, which in one way or another retard their academic commitments. In a survey conducted in America, 35% of students confirmed that their academic finances were traumatic and so difficult to control (American College Health Association, 2013).

Researchers have discovered many reasons for academic procrastination, which can be experienced by non-scholarship-based students. For example, higher stress as predicted in a study is conducted by the procrastination research group at Carleton University in Ottawa (Sirois & Pychyl, 2002), lack of energy and life displeasure (Effert & Ferrari, 1989). Flet, Blankestein, and Martin (1995) revealed strong correlation between academic procrastination, emotional consciousness, and stability.

Subsequently, detachment from academic procrastination through absolute engagement and total involvement of the student were identified in various empirical studies as keys

to student victory in higher institution. Therefore, students' connectivity to their academic endeavors is the determinant of their success (Allen, Robbins, Casillas, & Oh, 2008; Baker & Robnett, 2012; Hunt, Boyd, Gast, Mitchell, & Wilson, 2012; Morrow & Ackermann, 2012; Svanum & Bigatti, 2009).

Academic scholarship

Scholarship is one of the obvious advantages of getting rid of economic and financial anxiety during the students' academic career, most especially, students at higher institution. Having a scholarship will allow students to lessen that inevitable financial burden if it cannot be eliminated.

In addition, learning with a scholarship, prominently a prestigious type of scholarships, is the dream of every student. There are numerous advantages and benefits for a scholarship, which extend far beyond ordinary immediate financial achievement calmness and peace of mind that is attached to it. The scholarship may be a great and better opportunity, as it may contribute to student's self-esteem and natural built-in calmness cum relaxation to succeed in time management and simultaneously encourage the student to get rid of academic procrastination.

Academic scholarship at Khazar University

Khazar University is a private university for undergraduate and postgraduate education. It was established in 1991 under the name "Azerbaijan University with English as a medium of instruction" and later renamed to Khazar University in 1992 by the Academic Council of the University.

Academic tuition scholarship is a practice at Khazar University. The usual measure of scholarship at this university is based on percentages. The university maintains a global trend by providing merit-based and need-based scholarships for different category of students following their circumstances (Isakhanli, 2018).

A certain category of students is studying on state scholarship with monthly stipends. It is noteworthy to clarify the fact that scholarships – during this study – at Khazar University are strictly about tuition waiver scholarship on percentage basis, ranging from either full (100%) or partial (75%, 50%, and 25%) and do not include any monthly stipends or allowances, which may cover other expenses of students, such as, dormitory, feeding, books, clothes, or travel expenses (Isakhanli, 2018).

However, there are Azerbaijani government scholarships for both local and international students, which cover the whole tuition fees and include monthly stipend as well. This is

offered to the local students who scored highest in the state centralized entrance exam, also to the citizens of the member countries of Organization of Islamic Cooperation and Non-Aligned Movement countries. The selection of the international candidates is conducted by the Ministry of Foreign Affairs (Isakhanli, 2018).

Roots and problematic nature of academic procrastination

Basically, several researches (Díaz-Morales & Ferrari, 2015) have examined academic procrastination from different dimensions, depending on the aim, goal, and objective of the researchers. Jimenez (2003) illustrated that several ideas are linked to how procrastination came to be in its current state. Habitually, procrastination is a learnable attitude; this claim coincided with a view of the behaviorists, which claimed that procrastination is a learned habit developing from human the preference for pleasurable activities cum short-term rewards, for instance, writing an academic paper or preparing for exam versus shopping (Haycock, 1998). Contrarily, another view that consists of three main ideas outlined the psychodynamic lens of psychology. Beswick, Rothblum, and Mann (1988) described the first idea through Baumeister (1984) who believes the causal roots of procrastination to be either two of the two extremes of child-rearing: an overindulgent parent encouraging underachievement, or an overdemanding parent encouraging a rebellious attitude.

The last view from McCown, Johnson, and Petzel (1989) affirms that "*procrastination is a method of circumventing an unconscious death anxiety*." Historically, it was assumed in a term paper from the University of Oregon that academic procrastination is the result of deficits in study habit, time management, and organizational skills (Brown, 1991; Green, 1982; Ziesat, Rosenthal, & White, 1978). Subsequently, studies have revealed that it is much complicated, involving an interaction of behavior, cognitive, and affective components (Solomon & Rothblum, 1984). McCown and Johnson (1991) established correlations between variables such as psychoticism, extroversion, neuroticism, and procrastination-related behaviors (such as anxiety in anticipation of examinations, avoidance of studying due to lack of interest for the subject, and involvement in social or impulsive activities that interfere with completing course requirements).

Hence, Solomon and Rothblum (1984) speculated that individuals tend to avoid tasks, which they perceive unpleasant and engaged in more rewarding activities, especially with a short-term over long-term gain. That is, procrastination does not mean the inability to perform excellently but implies that procrastinators are surrounded by different circumstances, which trigger their procrastinating attitudes. For instance, lack of self-esteem, self-efficacy, self-conscious, and highly self-critical were demonstrated as the procrastinators' impediments (Effect & Ferrari, 1989). They further expatiated that fear of failure, eagerness for success, and perfectionism of ideology can lead to neurotic avoidance.

Unsurprisingly, Noran (2000) describes a procrastinator as somebody who adequately understands what should be done and even how it should be done, planning on how to get it done but having difficulty in implementation of the plan to do it.

Moreover, University of Oregon term paper also states that working under dire time limits with minimal sleep earnestly impairs attentiveness, cognition, and performance, leading to physical discomfort, emotional upset, and work that is below ability (Milgram, Yearwood, Khurgel, Ivy, & Racine, 1991). In addition, in another research, academic procrastination was found as an indicator that increases stress and illness (Tice & Baumesiter, 1997).

Furthermore, numerous studies have confirmed that procrastination often produces academic problems for students (Beck, Koons, & Milgrim, 2000; Beswick et al., 1988; Lay & Burns, 1991; Wesley, 1994).

Procrastination prevents brilliant students to display their exact ability on their academic tasks, either in writing a term paper or while preparing for the examinations, especially when the deadline is approaching. Past study on the subject argues that taking appropriate time over such academic-related tasks, not hurrying them unduly, or failing to submit them time are essential for academic success, especially on the courses that are continuously assessed (Ellis & Knaus, 1977). Another study supports the argument claiming that it is not surprising that academic procrastination should be negatively related to performance on college and university courses (Beswick et al., 1988; Solomon & Rothblum, 1984).

Procrastination is widespread among students, meaning that many students have postponed undertakings and even key decisions on their academic program, despite some acknowledgment that they can and should do them at the present and this notion of postponement or delaying is palpably an inhibitor toward students' excellent learning and performance. As suggested by many researchers, procrastination impedes academic success because it decreases the quality and quantity of learning while increasing the severity of stress and negative outcomes in students' lives (Ferrari, 1995; Milgram, Gehrman, & Keinan, 1992).

Accordingly, to be able to answer a sole research question of this study, which is "Do various types of scholarships impact academic procrastination of Khazar university students?," the following threefold hypotheses were generated:

H1: Scholarship value impacts academic procrastination of Khazar University students.

H2: Scholarship has a positive impact on decreasing academic procrastination of local/ Azerbaijani students compared to international students of Khazar University.

H3: Scholarship impact on academic procrastination does not change with gender difference among Khazar University students.

Methods

It is significantly important that any research must adopt a scientific approach. It provides researchers with the amount of confidence required to justify the claims that their research findings are scientific. Failure to apply scientific methods will jeopardize the quality of research even when the findings of such research correspond to the phenomena in the real world (Hussain, 2006). He further elaborates that without applying scientific methods, the correspondence between the findings and the phenomena in the real world may be a sheer coincidence.

Within the tradition of quantitative research, survey research methodology was selected, and Procrastination Assessment Scale for Students (PASS) was adopted to examine the impact of the scholarship on academic procrastination among the Khazar university students. The PASS is an established and developed survey of Solomon and Rothblum (1984).

The authors have concluded that the PASS is useful in both identifying possible principal areas for interference, and in getting rid of procrastination in subsequent time. The scale uses a 5-point scale from "*never procrastinate*" (1) to "*always procrastinate*" (5). Ethically, this instrument was adopted after a due ethical process by obtaining a licence to use it from the author Rothblum, E. D.

Research design as defined by Yin (1994) is the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusion. The sample comprises the population of Khazar university students at all categories, males, females, undergraduate, postgraduate, local, and international.

Researcher suggested precedence in the selection of population over the selection of sampling state and must be done carefully regarding the principles of selection, preferred size, and the limitations for the population of survey (Powell & Manion, 1997). The instrument (PASS) entails a little modification at which aspects of administrative and attendance-related tasks, such as meeting with your advisor, were removed for the suitability of the undergraduates among the population. As a result of that modification, academic procrastination of the participants was evaluated based on the following domains: writing a term paper, studying for exams, and keeping up weekly reading assignments.

The groups were systematically divided into four categories based on their academic scholarship status at the university. That is, (a) 25% of scholarship recipients among the control group were grouped with non-scholarship recipients as "non-scholarship," (b) those with 50% and 75% were in the same group as "partial tuition scholarship," (c) students with full-tuition waiver (100%) were made as a separate group and tagged as

"full-tuition scholarship," and finally (d) students with full (100%) tuition and monthly stipends were in the same group as "full tuition with stipends."

The participants were randomly selected through the database of the admissions office, international affairs office, financial department and dean's office school of humanities, and social sciences in Khazar University. Gay, Mills, and Airasian (2012) reported that simple random sampling is a method in which all individuals in the selected population have an equal and independent chance of being selected for the sample. A total number of 205 questionnaires with an additional page of consent and personal data for important demographic variables were administered across the entire control groups as stipulated above. The page was attached to convey the basic and necessary ideas about the study to the participants, to ensure anonymity with regard to their participation, and to provide the procedures to administer the questionnaires. Eight questionnaires were missed during the data collection process and the number of recovered questionnaires was 197.

However, another 12 questionnaires were removed due to lack of adequate administration. Therefore, 185 responses of the control group were considered for data analysis of this study. Approximately, the total number of active students' population during this study was 2,000 and 205 questionnaires were distributed on a random basis. Gay et al. (2012) reported that a good sample is one that is a representative of the population, so that the findings can be generalized. Table 1 displays an overview of the respondents' method of distribution according to their scholarship status.

Data analysis

A quantitative nature of data analysis is concerned with development or application of the methods and techniques for organizing and analyzing statistical data (Powell & Manion, 1997). Therefore, the obtained data were coded numerically for subsequent analysis. The data were analyzed using different tests but majorly concentrate on descriptive statistics in SPSS (IBM SPSS Statistics for Windows, version 23.0, Armonk, NY, USA) to answer the research question.

Table 1. Classification of respondents according to their scholarship status

Valid	Frequency	%	Valid %	Cumulative %
No scholarship	46	24.9	24.9	24.9
Partial scholarship	49	26.5	26.5	51.4
Full-tuition scholarship	47	25.4	25.4	76.8
Full-tuition with monthly stipends	43	23.2	23.2	100.0
Total	185	100.0	100.0	

To explore the impact of the scholarship on academic procrastination, the study focuses on measures used in grouping the participants, and the differences in means of these groups were compared based on their scholarship categorizations to establish the impact of the scholarship on their academic procrastination. In the models of this study, students' gender, nationality, and level of study were tested through frequency counts and percentages to determine whether scholarship has a different impact on academic procrastination in men and women, or among undergraduate and postgraduate students, or in local and international students.

Results

To provide insights into the impact of the scholarships on academic procrastination of the students, raw standard deviation and mean values of the item of selected academic procrastination domains were displayed through descriptive statistics (Table 2). The students of no-scholarship category showed a notably higher mean value on all domains than other categories (writing a term paper, mean = 4.50; studying for exam, mean = 4.39; and keeping up weekly reading assignments, mean = 4.48). This estimation indicates that students of no scholarship involved in academic procrastination than other students with scholarships, irrespective of the nature and type of their scholarship. Interestingly, the finding of this study revealed that partial scholarship recipients among the control group engage in academic procrastination but slightly better (writing a term paper, mean = 3.59; studying for exams, mean = 4.50; and keeping up weekly reading

*Table 2. Descriptive statistics of the selected items of academic procrastination domains, raw standard deviation (*SD*), and mean values*

Respondents' scholarship level		**Writing a term paper: to what degree do you procrastinate on this task**	**Studying for exam: to what degree do you procrastinate on this task**	**Weekly reading: to what degree do you procrastinate on this task**
No scholarship	Mean	4.5000	4.3913	4.4783
	SD	0.93690	0.93043	0.88792
Partial scholarship	Mean	3.5918	3.4898	3.5918
	SD	1.11651	1.10156	1.33726
Full tuition scholarship	Mean	3.8511	3.7021	3.7872
	SD	1.12247	1.15936	1.10210
Full tuition with monthly stipends	Mean	3.4884	2.9070	2.9767
	SD	1.68144	1.61561	1.61080
Total	Mean	3.8595	3.6324	3.7189
	SD	1.28610	1.31671	1.35411

assignments, mean = 4.48) compared to those students with full-tuition scholarship (writing a term paper, mean = 3.85; studying for exam, mean = 3.70; and keeping up weekly reading, mean = 3.79). As hypothesized, category of students with full-tuition and monthly stipends were found with lower mean value (writing a term paper, mean = 3.49; studying for exams, mean = 2.91; and keeping up weekly reading assignments, mean = 2.98). Despite these observable differences in the range of prevalence of academic procrastination among the population of this study, it is important to report that all the four groups registered a high level of academic procrastination on "writing a term paper" as indicated in the histogram's boxplots in Figure 1.

Concerning the impact of the scholarships on academic procrastination of international students among the control group. On the contrary to the hypothesis of this study, local students were reported with a higher degree in all the selected areas of academic procrastination than international students (Table 3).

Subsequently, the mean values of female and male students were equally compared to test the hypothesis regarding gender. Both genders confirmed their academic procrastination on writing a term paper, but female students procrastinate somewhat higher (mean = 3.98) than male students (mean = 3.72). With regard to studying for exams, the mean values of female students were higher (mean = 3.78) than mean values of male students (mean = 3.47); the trend was comparable in keeping up weekly reading assignments where male students' mean value was 3.46 and female students' mean value was 3.95 (Table 4). This study also tested whether scholarship has different impacts on

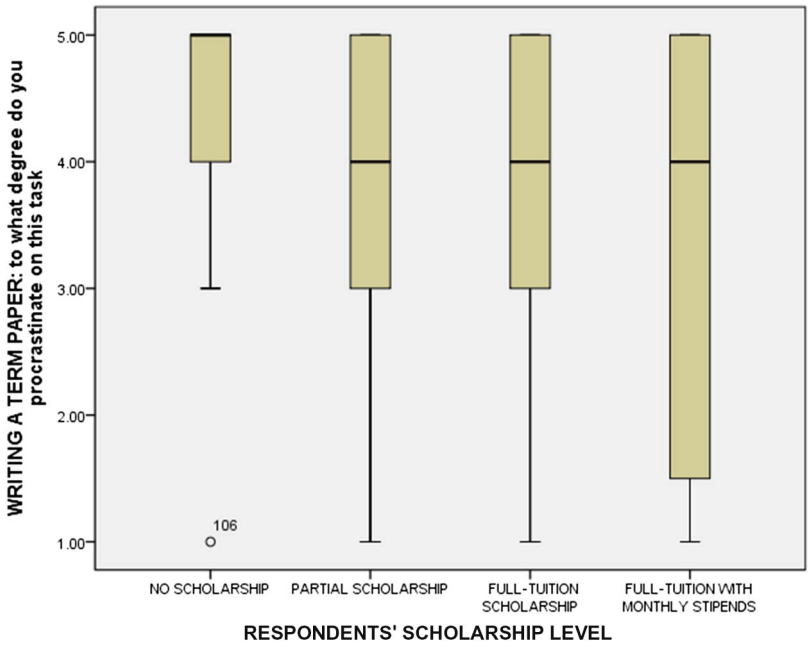

Figure 1. Histogram's boxplots

Table 3. Means comparison report: international and local students

Country of origin		Writing a term paper: to what degree do you procrastinate on this task	Studying for exam: to what degree do you procrastinate on this task	Weekly reading: to what degree do you procrastinate on this task
International	Mean	3.6600	3.5000	3.5200
	SD	1.20560	1.21638	1.38858
Azerbaijani (local)	Mean	3.9333	3.6815	3.7926
	SD	1.31126	1.35301	1.33884
Total	Mean	3.8595	3.6324	3.7189
	SD	1.28610	1.31671	1.35411

Note. SD: standard deviation.

Table 4. Mean values for writing a term paper, studying for exam, and weekly reading based on gender

Participants' gender		Writing a term paper: to what degree do you procrastinate on this task	Studying for exam: to what degree do you procrastinate on this task	Weekly reading: to what degree do you procrastinate on this task
Male	Mean	3.7241	3.4713	3.4598
	N	87	87	87
	SD	1.39509	1.43737	1.52350
Female	Mean	3.9796	3.7755	3.9490
	N	98	98	98
	SD	1.17517	1.18870	1.14309
Total	Mean	3.8595	3.6324	3.7189
	N	185	185	185
	SD	1.28610	1.31671	1.35411

Note. SD: standard deviation.

academic procrastination in undergraduate and postgraduate, or in marital students' marital status. Meanwhile, as no significant results were found, the results from this interaction analysis are not shown.

To investigate the research question of this study regarding the impact of the scholarships types on academic procrastination among Khazar university students, independent variable and control variables were regressed onto the classifications of scholarship. Variables were systematically placed into a multiple regression grouping the participants into four categories according to their scholarship status. Consistent results across models were indicated in Table 5. The logged entire classifications of scholarship predicted academic procrastination of students through the three selected domains, $F(5,\ 179) = 5.777$, $p < .0005$, $R^2 = .139$, making the variables statistically significant (Tables 5 and 6).

Table 5. Analysis of variance[a]

Model 1	Sum of squares	*df*	Mean square	*F*	*p*
Regression	31.138	5	6.228	5.777	.000[b]
Residual	192.949	179	1.078		
Total	224.086	184			

Note. [a]Dependent variable: scholarship–financial aid. [b]Predictors: (constant); School activities: to what degree do you procrastinate on this task; writing a term paper: to what degree do you procrastinate on this task; academic admin tasks: to what degree do you procrastinate on this task; studying for exam: to what degree do you procrastinate on this task; weekly reading: to what degree do you procrastinate on this task.

Table 6. Model summary[a]

Model	*R*	R^2	Adjusted R^2	*SE* of the estimate
1	.373[a]	.139	.115	1.038

Note. SE: standard error.
[a]Dependent variable: scholarship–financial aid.

Discussion

In this empirical study, a unique sample of private university students was used to investigate whether the scholarship types have an impact on academic procrastination of students analyzing the following research question: "Do various types of scholarships impact academic procrastination of Khazar university students?" Certain demographic controls for gender, nationality, level of education, marital status, and classifications of scholarship were included in the questionnaire of this study. As there were no consistent a priori theoretical expectations about the impacts of some of these controls, only variables that were expected to be positive (such as gender, nationality, and scholarship classifications) were included in the analysis of this study. Relevantly, it is important to emphasize the fact that findings of this unique study were not adequately buttressed with previous studies, as no study has been previously carried out to investigate the impact of the scholarship on academic procrastination before this study.

The prior studies on scholarship and or financial aid focused on other areas such as effects of scholarships on students' decisions toward their enrollment in college (Dynarski, 2000; Hurwitz, 2012; Kim, 2012; Kane, 2003; Leslie & Brinkman, 1987; Long, 2008) and students' persistence (DesJardins, Ahlburg, & McCall, 2002; Dynarski, 2003; Scott-Clayton, 2011). Descriptively, the study was conducted to evaluate the impact of different types of Khazar University scholarships on academic procrastination of students. The evaluation was performed on 185 students as the control group of the study. These 185 participants were grouped as representative of four modules of common scholarships existing in the

university. The students' procrastinating attitudes were based on three different areas, namely "writing a term paper," "studying for exams," and "keeping up with weekly reading assignments" in accordance with their scholarship status.

As hypothesized, the scholarship was found to be significantly impacted academic procrastination among the students. Recipients of full scholarship with monthly stipends were found with the lowest level in all selected areas of academic procrastination. On the contrary, non-scholarship recipients among the students were reported with the highest values of academic procrastination in all targeted domains of this study as outlined above. Mere assessment of the two outcomes indicates a positive impact of the scholarship on academic procrastination, although astonishing results were discovered while comparing mean values of the recipients of partial and full-tuition scholarships.

The study confirmed that recipients of full-tuition scholarship procrastinated slightly higher than students with a partial scholarship. Not just in one or two but all the three selected areas of academic procrastination are included in this study. However, among all the four categories, the findings of this study that recipients of full-scholarship with monthly stipends procrastinate but with the lowest rate compared to those students in other categories. Despite the wide range in the academic procrastinating attitude of the students with full-tuition and monthly stipends, a high mean value of 3.48 was reported for them on their academic procrastination in writing a term paper.

This attracts two scenarios. First, regardless of the nature of scholarship, students generally procrastinate in writing term papers compared to other areas within their academic activities. Second, it affirms the problematic nature of procrastination which affects anybody that vein running in his or her vein (Samuel, 1751).

Accordingly, the study tested whether there is an impact of the scholarship on academic procrastination regarding gender. It was confirmed that female students procrastinate slightly higher than male students. This is relevantly allied to what has been discovered in some previous studies. For example, Haycock, McCarthy, and Skay (1998) as well as Paludi and Frankell-Hauser (1986) have proclaimed that there is tendency that women are at greater risk to procrastinate than men and consequently women can undergo the serious and dangerous anxiety related to procrastination than do men (Rothblum, Solomon, & Murakami, 1986). The findings according to the international and local students in this study were not as it was predicted in the hypothesis that international students procrastinate more than do local students. Even though the two categories confirmed that they procrastinate in the three domains, it was glaringly reported that local students engage more in all the areas of academic procrastination.

In summary, all the previously analyzed findings should be observed in the context of the limitations of this study. This suggests avenues for forthcoming research. Due to data limitations, the researcher had to classify the control group of this study according to their scholarship status in the university, to generate an accurate number for the study, and to access the scholarship impact on academic procrastination through the comparison of their responses. The future study should focus on a large sample of scholarship recipients of the same nature to generate more accurate results. As this study focuses on scholarships, the future study may consider the comparison between different channels of financial aid, such as grants, loans, and work–study opportunities.

This study contributes to the literature in some major ways but most importantly, it is regarded as the first study to be conducted investigating the impact of the scholarship on academic procrastination. Researchers have taken several approaches to deal with the concept of scholarship as a motivator that influence students' decision for college enrollment, retention, persistence, and graduation rate at the college (Dynarski, 2000; Hurwitz, 2012; Leslie & Brinkman, 1987; Long, 2008; Kane, 2003; Kim, 2012). Similarly, the concept of academic procrastination has been dealt with as an impediment toward students' success (Beswick et al., 1988; Solomon & Rothblum, 1984). In terms of generalizability, the approach in which the data of this study were gathered and also with the considerable size out of the population make the findings generalizable. The study investigated the general population of students, as it provided participation right to all students of different academic level.

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About the Author

A-RBM-S was graduated at Al-Azhar university, Cairo-Egypt in Education in 2006. His Master of Education was obtained at International Islamic University Malaysia (IIUM) in 2009. He has worked at various academic institutions in his home country and abroad. He is currently doing his Ph.D program at Khazar university, Baku-Azerbaijan. He has participated in many conferences and published some academic papers. He is interested in issues concerning educational psychology, management, administration and religion.

Ethics

The study procedures were carried out in accordance with the Declaration of Helsinki. The Institutional Review Board of the Khazar University (Baku, Azerbaijan) approved the study. All subjects were informed about the study and all provided informed consent.

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European experience of multilingualism and the development of multilingual education in Kazakhstan

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Abstract

This literature review article is dedicated to the issues and notion of multilingualism, particularly in Kazakhstan. Kazakhstan is a multiethnic country where more than 130 different ethnic groups reside. At present, a fast multilingual advancement is taking place in Kazakhstan. The study explores the origins and definitions of multilingualism, the role of multilingualism in the development of the Kazakhstani education system, and the models of multilingual education in Kazakhstan. Different approaches and definitions in terms of multilingualism and the performance and implementation of multilingual education are presented. The development of multilingual education in the Kazakhstani educational system plays a pivotal role and it is rapidly developing. The implementation of multilingual education in this country aims at integrating and internationalization of Kazakhstan to the world's educational and scientific societies. Multilingualism is also widespread in some of the European countries. Several approaches related to the multilingualism and multilingual education are indicated in this article. This paper introduces the challenges and suggestions of diverse alternatives of multilingual education in Kazakhstani higher education institutions.

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Multilingual Policy and Multilingual Education in Europe

According to Joze Manuel Vez (2009), multilingualism is regarded as "*the plus factor for European integration, competitiveness and the growth and better jobs*." In addition, it should be mentioned that in the context of European education according to Leonard Orban, European Union Commissioner for Multilingualism, multilingual education is defined as the phenomenon, which well involves three or more languages rather than only two (European Commission, 2005). The Council of Europe designates plurilingual competence as an "*ability to use languages for the purpose of communication and to take part in intercultural interaction, where a person, viewed as a social agent, has proficiency of varying degrees, in several languages, and experience of several cultures*" (Coste, Moore, & Zarate, 2009, p. 11).

It should be mentioned that the role and principles of multilingualism are being expanded and elaborated in the European Union. European Commission published an official report in 1995, which is devoted to education identifying the principle goal of trilingualism of all the European countries (The European Union, 1995).

Nowadays, multilingualism and multilingual education have rapidly been developing. Multilingualism is becoming one of the most significant foci in the European Union's policy. The focus is mainly paid to the implementation of multilingualism and its semantic part development in European countries. One of the basic issues of multilingual policy is language and cultural diversity among member states (Krzyżanowski & Wodak, 2011).

The poser of multilingualism is so important that it was reflected in the policy documents of the European Commission where its relevant issues were discussed much. The key document of "The New Framework Strategy for Multilingualism" (European Commission, 2005) reasons "commitment to multilingualism in the European Union" and for "promoting multilingualism in European society, in the economy and in the Commission itself." This document also indicates multilingual promotion in different fields embracing the social, economic, and other spectrums (Krzyżanowski & Wodak, 2011).

Krzyżanowski and Wodak (2011) explore the semantic field of multilingualism in the framework of European Union policy in different periods and describe each semantic development of multilingualism differently depending on time. Figure 1 illustrates multilingualism that embraces "mother tongue" and several other domains related to foreign language learning. Learning a foreign language as well as language skills and motivation in this field shapes the economic and employment issues of the countries

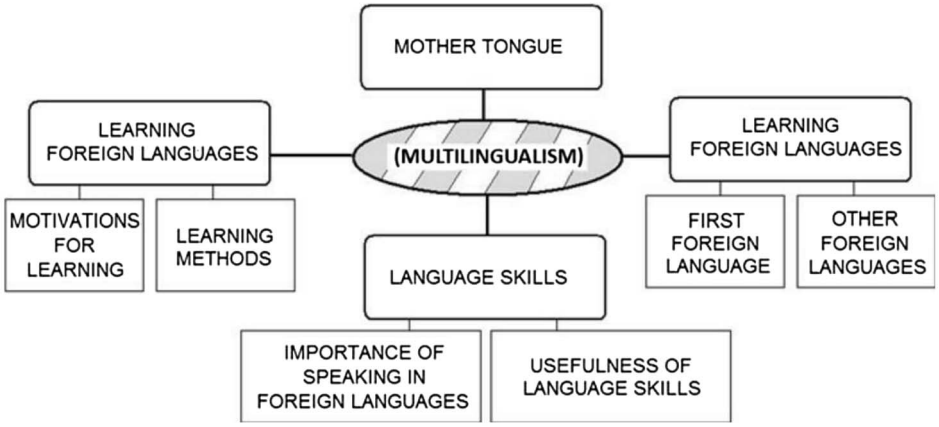

Figure 1. The semantic field of multilingualism in EULMP in 2000 (Krzyżanowski & Wodak, 2011)

allowing people to increase the mobility in employment and economy as well. By creating this model, the Lisbon strategy has already an impact on language policy and multilingualism through the description of language skills and foreign languages.

According to the European Commission (2005) in the frame of European countries, it is normal that the use of three languages and the knowledge of languages allow people move among the nations for different purposes involving educational and professional reasons.

One of the most significant reasons for choosing the given model of the semantic field of multilingualism in EULMP is that, to our knowledge, it seems to be more applicable in the context of Kazakhstani multilingualism policy development and multilingual education system. The project of "Trinity of Languages" might serve as one of the economic reasons for multilingualism policy development in Kazakhstan. The implementation of multilingual education reform in educational institutions may serve as the possibility for further investment and employment growth.

The most important priority in the given model is the involvement of "mother tongue," which in Kazakhstani context is regarded as a must while integrating and implementing multilingual education. The core reason for multilingualism policy in Kazakhstan is the achievement of mother tongue knowledge, which means that through multilingual education we can enhance the knowledge and use of Kazakh language (mother tongue). Simultaneously, the utmost attention is paid to acquire foreign languages and currently Kazakhstan is working hard on the development of learning foreign languages that embraces the implementation and practicing of different kinds of learning methods, language skills, and the significance of foreign language use.

According to the European Commission (2005), multilingualism is designated as "*a person's ability to use several languages and the co-existence of different language communities in one geographical area*." Moreover, the Commission's long-term task is to

teach at least two foreign languages and enlarge individual multilingualism because everyone should acquire practical skills in foreign languages including their mother tongue (European Commission, 2005). Following the European Commission (2005), they elaborated a strategy with several key fields for action in the educational system and practices that contain national strategies emphasizing the "*need for national plans to give coherence and direction to actions to promote multilingualism amongst individuals and in society generally*".

National Examples of Multilingual Education in the European Context

Case of the Nordic countries

A significant example of multilingual education systems is essential to research the Nordic countries (Denmark, Finland, Norway, and Sweden) because of their multilingual developments.

Finland is regarded as one of those countries that possess two (Swedish and Finnish) official languages (Tucker, 1999 cited in Björklund, Björklund, & Sjoholm, 2013). Denmark, Norway, Finland, and Sweden participate in *Network for Researchers of Multilingualism and Multilingual education, RoMME (2011–2013)* to develop multilingual policy in all of these states. Notwithstanding, not only a huge amount of similarities are found in these four countries, but also they have differences in the development of language programs and the language of language use. To develop such a complicated task, the network of researchers in Nordic countries tries to organize the congregations for the researchers involving the graduate and post-doctoral researchers, lecturers, and experts in identifying the advantages and disadvantages of multilingual education (Björklund et al., 2013).

All these four Nordic countries have similar language-learning system in primary schools and their compulsory education is prolonged to 9 years. Foreign language learning in these countries starts mostly from the primary education level as it is demonstrated out in Table 1. As it is indicated in Table 1, English language is considered to be the predominant language among the others and most of the learners choose English as their first foreign language (Björklund et al., 2013).

As shown Table 1, the development of foreign language education in comprehensive school illustrates that the languages are added gradually, parallelly, and simultaneously with each other. Nordic countries disseminated the syllabuses for integrating and teaching of national minority languages as a mother tongue in addition to the foreign language program. In spite of that, all these four Nordic countries have the same research area they put much effort into developing the languages differently. It is in Norway's interest to develop national language teaching for immigrants to be able to use the national study

Table 1. The general national frames of foreign language in primary education

Foreign language education in comprehensive school (in general)	Denmark	Finland	Norway	Sweden
	English (Grade 3) + another language (Grade 7)	English (Grade 3 or 4) + the other national language (Grade 7 or 3) + 1 optional language (Grade 8)	English (Grade 1 or 3) + another language (Grade 7)	English (Grade 1) + another language (Grade 6)

Note. Source: Björklund, Björklund, and Sjoholm (2013).

programs (Björklund et al., 2013). We should state here that multilingual education in Nordic communities was developed and spread from the early school environment.

International experience in multilingual education demonstrates two basic groups of multilingual education: weak and strong. The first means the usage of only one language, whereas the latter implies the implementation and fluency in several languages. Out of 178 multilingual countries in the world, only 5 have implemented multilingual education successfully. According to the results of PISA 2015, only Finland, The Netherlands, Switzerland, Spain (The Basque country), and Luxemburg have best practices and consequences in the sphere of multilingual education (Irsaliyev et al., 2017). Let us consider the development of multilingual education in Finnish schools and the way they allocate time for language learning (Figure 2).

In general, considering the success factors behind the Finnish model, it is important to point out that, in case of Finland, the key points of multilingual education development are the right time arrangement of language learning in school grades and the high expenditure on education. Moreover, future teachers get compulsory subject blocks on multilingualism as a part of their academic program (Table 2). The implementation of Content and Language Integrated Learning (CLIL) involving the universities where they acquire 50% of subjects in English on multilingual education theory and practice is an additional element that addresses multilingualism. Thus, after the graduation of secondary school,

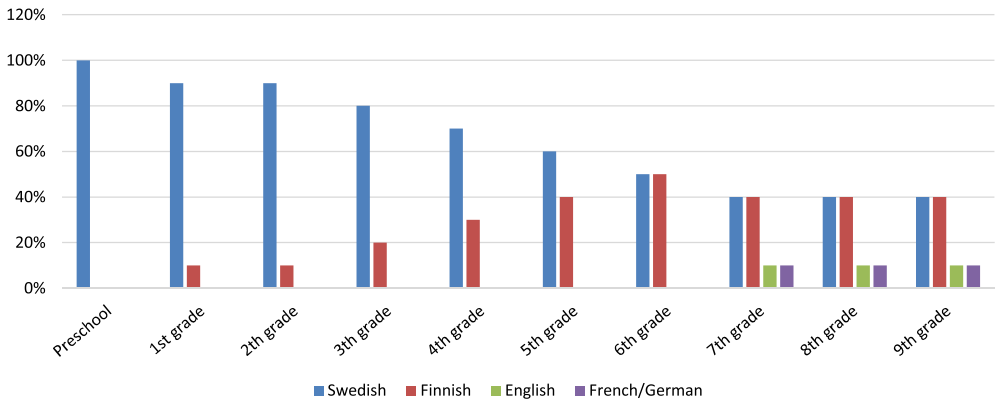

Figure 2. The multilingual education model in Finnish schools with time allocation for each language, % (source: Irsaliyev et al., 2017, p. 149)

Table 2. Main peculiarities of five countries in multilingual education

No.	Country	Main peculiarities in multilingual education
1	Finland	Most of the school leavers are proficient in four languages
		Expenditure per student is $9,579 (7 times more than in Kazakhstan)
2	The Netherlands	Teaching in two languages from Grades 1–7, in three languages Grades 7–8, in English from Grade 9 using CLIL
		Students speak in three languages
		Expenditure per student is $10,552 (7.7 times more than in Kazakhstan)
3	Switzerland	Lower proficiency of L2 and other in the adult population
		Most school leavers speak in two languages, half of them in three languages
		Expenditure per student is $15,891 (11 times more than in Kazakhstan)
4	Spain (Basque country)	Choice for secondary school students to choose the models of multilingual education in public or private schools
		Absence of Basque language relation to others
		Expenditure per student is $9,769 (7 times more than in Kazakhstan)
5	Luxembourg	Language instructions are: German and French
		English as a foreign language begins from Grade 7
		After school graduation, the students know in three languages
		Expenditure per student is $16,200 (11 times more than in Kazakhstan)

Note. Source: Irsaliyev et al. (2017).

most of the students are already competent in four languages embracing Finnish, English, Swedish, German, and French. Ranging from 40% to 70% of subject content is taught in English within 5 years (Irsaliyev et al., 2017, p. 151).

Multilingual Education in European Higher Education Institutions (HEIs)

English language is regarded as the language of globalization, and HEIs are competing in the world level, as English became the global lingua franca (Coleman, 2006; Graddol, 2006 cited in Doiz, Lasagabaster, & Sierra, 2013).

"*The real meaning of globalization is multilingualism*" (Shohamy, 2007, p. 132). The case of higher education is varying in comparison with the schools. English language is regarded as the predominant language among the HEIs and in the scientific field. All the basic domains of higher education (scientific research, education, and community services) are provided mostly using the English language notwithstanding the merits of national languages in Flanders they applied to utilize English almost in every aspect. For instance, in the context of Brussels, in higher education, they implemented both Dutch and French as the language of instruction, but The Flemish Ministry of Education permitted to use English in specific situations such as courses conducted by the

international professors, programs, and training for foreign students (Janssens, Mamadouh, & Maracz, 2013).

The French community tends to arrange curriculum in English and it leads to the frequent usage of this language in all three cycled levels of education such as bachelor, master, and post-academic degrees. Furthermore, the European Union plays a pivotal role in it while initiating different international programs for student exchange like Erasmus or Marie Curie, which results in the enhancement of English language use developing the mobility settings among both students and teachers (Janssens et al., 2013).

Janssens, Mamadouh, and Maracz (2013) exemplify that there is a cooperation between French-speaking (Université Libre de Bruxelles) and Dutch-speaking (Vrije Universiteit Brussel) universities in Brussels, which provide trilingual (French, Dutch, and English) education for the civil engineers. However, in spite of such good prestige of universities, the Flemish Ministry of Education insists that all the teaching staff who teach in English should prove their language proficiency according to the European standard C1 by passing tests. Moreover, foreign-invited professors should also obtain a B2 level of the Dutch language to fit their environment (Janssens et al., 2013).

As for the case of Finland, there are several HEIs where multilingual education is spread. For example, the University of Vaasa and Abo Akademy provide teacher training in two stages: undergraduate – 180 ECTS and Masters – 120 ECTS. The subjects on multilingualism, pedagogy, and major subjects are considered to be compulsory. In Abo Akademy, the students learn three credits on the theory of multilingual education and two credits go to the practice of multilingual education and 50% of these subjects are taught in English language (Irsaliyev et al., 2017). The University of Oulu and the University of Jyvaskyla provide 40%–70% of teaching in English in the 5-year CLIL teaching. In addition, the University of Helsinki and the University of Turku contribute to CLIL training for teachers a lot (p. 151).

Having analyzed Finland's contribution to the development of multilingual education in HEIs, it is obvious that much effort is spent on the provision of multilingual teaching staff and more credits for university students. While providing teachers with CLIL education and at the same time, the universities facilitate multilingual subject blocks for students starting from the beginning of university education most percentage of which is supplied in the English language.

Another example of multilingual education in HEIs refers to the case of Basque Country. Doiz et al. (2013) argue that it will be helpful to analyze one particular multilingual university to understand its picture. If to exemplify we can take Basque autonomous

community that has the University of Basque Country, which is estimated to be the bilingual one. This country witnesses the usage of two official languages such as Spanish, and the majority and minority one is the Basque language. The given university also witnessed language policy development that comes together with the internationalization process. It brought about three strategic actions and the first was dedicated to the development of student exchange and academic mobility, teaching staff mobility. The second one was dedicated to the international network, research, and university-wide involvement settings. The latter encompasses the production of multilingualism program, which was launched in 2005–2006 and approved by the Governing Council. In the frame of the multilingual program, students are enabled to enroll for the courses conducted in foreign languages (Doiz et al., 2013). There are several objectives of multilingualism program of the Basque University:

- to proceed at the tertiary level with experimental trilingual level utilized at pre-university level (Basque, Spanish, and English used as languages of instruction);
- to enhance students' foreign language skills and to conduct research in a foreign language;
- to develop students' work;
- to adjust the pursuit of post-graduate degrees abroad;
- to engage foreign students and teaching staff.

There were three paralleled groups in aforementioned three languages with the subjects in three languages in this university within the multilingualism program framework. Students have the right to choose in what language to study and what compulsory specific subject to choose. However, the optional courses are taught only in one of these languages. In 2010–2011, the University of Basque Country witnessed that, in the frame of multilingualism program, the number of students' increased 1,300 and over 400 qualified teaching staff who acquired the indispensable level (C1) of official language proficiency (Doiz, et al., 2013, p. 1409).

Multilingualism and multilingual education are expanded in the frame of South-East European University, which is situated in Macedonia, created in 2001. The educators in Macedonia encounter the obstacles in terms of languages in their work as it is regarded a multilingual nation (Xhaferi & Xhaferi, 2012). Xhaferi and Xhaferi (2012) conducted a research dedicated to the issues of teachers' perception of multilingual education and implementation of teaching techniques in multilingual groups in higher education. The research sample consisted of 50 professors and young assistants of that university faculty.

For the data analysis, the researchers resorted to the quantitative method encompassing questionnaire-based inquiry and classroom observation. The findings state that the faculty teachers fully support the development and implementation of multilingual education claiming that it is helpful for the students' future career. Moreover, the researchers argue that magazines, newspapers, TV, and posters are frequently utilized in the process of teaching in multilingual classrooms and of paramount importance for the students' effective communication and interaction (Xhaferi & Xhaferi, 2012).

This kind of research is significant in the frame of multilingual education South-East European University as well as analyzing teachers' perception of multilingual education. However, the given research lacks detailed theory and needs deeper analysis with more meaningful and significant queries or probably the researchers are limited with the interpretation of research results in this study.

Recommendations for Kazakhstan

Based on the aforementioned cases on multilingual education considering five successful states that have the best theory and practice, we could conclude some implications of multilingual education in the context of Kazakhstan. Kazakhstan may try to follow the models of international cases due to that they have a great practice in it. Provided that at the same time we should also remember that in all the cases, which were introduced above more than a hundred and some countries have around 30 and 40 years of experience in multilingual education. For example, Finland introduced multilingual education in 1987 and Luxembourg in 1912, The Netherlands in 1997, and Spain (The Basque Republic) in 1982 (Irsaliyev et al., 2017).

Kazakhstan is in its early stage of integrating multilingual education having introduced it in 2004 and started to implement in 2008. Thus, the country is encountering several considerable problems in introducing multilingualism, like the preparation of the teaching staff, redesign of study programs, provision of teaching resources and tools as well as supporting the learners, and teachers with applicable and required knowledge and equipment. By analyzing the international models of multilingual education, one could argue that they are the best and examined one that can strongly contribute to the development of multilingual education in Kazakhstan. The experienced countries are well-developed and in the case of Kazakhstan, we should also brood about the social–cultural, economic, and political interventions that may have a great impact on it.

Kazakhstan can gain necessary insights and practical implications based on the international experience to adapt the process of developing multilingual education. It covers almost all the needs in this sphere starting from the model of multilingual education to the teacher preparation. Considering the whole process of multilingual education, it is of high

importance to prioritize the key features of teaching staff preparation that contributes to the rapid development of multilingual education area.

Let us consider the key features of teaching staff preparation in multilingual education in Finland, The Netherlands, Luxembourg, Spain, and Switzerland. First of all, the significance of usage and training the CLIL method is necessary from the teachers' perspective. Such trainings on specific direction for teacher preparations give opportunities for acquiring different kinds of teaching methods and ideas, competences, as well as language course attendance for teachers. Furthermore, it cannot be limited only to the language learning; it also expands to the participation various teacher training courses, different online courses, the development of content knowledge, CLIL methodology, and cognitive skills (Hillyard, 2011).

Another contribution of CLIL is "*experience with teaching content matter through more than one language is bringing new insights into improving general education programmes*" (Baetens-Beardsmore, 2001). Teaching through CLIL method implies teaching content subject material via foreign language. Sometimes, it is also available that content subject teacher and foreign language teacher may work together by learning mutually and supporting each other (Vázquez & Ellison, 2018). Using these features, it will be easier to provide with multilingual teaching staff in several universities in a multilingual area. One of the essential recommendations is the facilitation and support of multilingual teachers, their professional development, and the enhancement of motivation for both teachers as well as students. To develop it further, it is also necessary to upgrade the proficiency of three languages of educational leaders. The expenditure per student and salary for teachers in Nordic countries are very different in comparison with Kazakhstan, which needs consideration too (Irsaliyev et al., 2017).

Multilingual education in Kazakhstan

State policy. The initiative of what the head of the state has entitled "*The Trinity of languages*" in Kazakhstan was introduced in 2004. After 2 years in 2006, during the 12th session of the Assembly of the people of Kazakhstan, the President of the country emphasized the significance of the knowledge of three languages, which is essential for the country's future. Along with this, the next step of implementing trilingual education was proposed in 2007 in the message of the President "New Kazakhstan in a new world" that involved the attraction of teaching staff from abroad and gradual implementation of trilingual education started (*Address of the President of the Republic of Kazakhstan, Nursultan Nazarbayev, to the people of Kazakhstan*, 2007).

In 2014 in the "Kazakhstani way-2050" declaration, the leader of the country pointed out the necessity of the knowledge of three languages for the school leavers (*Address of the President of the Republic of Kazakhstan N. Nazarbayev to the nation*, 2014).

Based on the "Trinity of Languages" project, the "State Program of functioning and development of languages for 2011–2020" (Decree of the President of the Republic of Kazakhstan №110, n.d.) is being carried out in three stages. The *first stage* starts from 2011 to 2013 and is dedicated to the usage of language development of measures to improve the regulatory and methodological basis. The *second stage* from 2014 to 2016 is devoted to the introduction and application of technologies, language teaching methods, language diversity safety, and practical implementations. The *third stage* from 2017 to 2020 witnesses the maintenance of another language usage, the necessity for the use of state language in public life, and the absorption of the demand for the quality and the validity of the monitoring system results (State Program of functioning and development of languages for 2011–2020). According to the aims of the "State Program 2011–2020" of the Republic of Kazakhstan, 95% of the population should speak Kazakh, 90% – Russian language, and 20% – English language (Toktamysova, 2012).

At present, the new generation of Kazakhstan is fully being integrated and influenced by multilingual education, because it is now being implemented and added to the curriculum of HEIs.

Experimental schools in Kazakhstan in multilingual education. Since 2007–2008, the multilingual education started by the initiative of the Kazakhstani Ministry of Education and Science (Kulsariyeva, Iskakova, & Tajieva, 2017). First of all, the implementation of multilingual education in three languages in the country began in three experimental bases including 33 "Daryn" pilot schools 20 Nazarbayev Intellectual Schools (NIS) and 30 Bilim Innovation Lyceums (BIL) of all educational levels in pilot mode. Both NIS and BIL use the strong model of trilingual education while implementing three languages as instruction languages (Irsaliyev et al., 2017, p. 135).

Strong model of multilingual education can be divided into three: language immersion for schoolchildren where they study in two languages including early, medium, and late immersion, which depends on the grades and ages of students. Second is the two-way immersion that means the equal study of the speakers of first and second languages in the same classroom. The third one is dedicated to the traditional bilingual education in those countries, which are officially regarded as multilingual (Luxemburg and Singapore). It usually occurs in the international schools where one of the language instructions is English (Björklund et al., 2011 cited in Irsaliyev et al., 2017). These schools presented the study process in Kazakh, Russian, and English embracing the STEM subjects trained in English (Kulsariyeva et al., 2017).

NIS and BIL have their system of integrating the languages of instruction from the definite period of time, for example, BIL adopt lately Kazakh language from the 9th grade, whereas NIS provide their learners with English language for language instruction and BIL start

using English language instruction only after the language preparation (Irsaliyev et al., 2017). NIS and BIL schools are considered to be piloting schools of multilingual education. In 2019, the implementation of trilingual education will start in the other public and mainstream schools based on the experience of the aforementioned piloting schools (Irsaliyev et al., 2017).

NIS prepares their learners for 4 years extensively for instruction in English (Table 3), whereas, in BIL, they began to teach only after 4 months of intensive language training (Irsaliyev et al., 2017).

As illustrated in Figure 3, the model of trilingual education in NIS keeps the early immersion of the first language until grade 12. Native speakers, implementing bilingual team teaching, are carrying out teaching in this type of schools. In teaching English, they provide the learners with 4-year extensive language training and therefore by the end of school completion they are to possess C1 level of English. Furthermore, the learners are encouraged to be engaged in extracurricular activities in English language (Irsaliyev et al., 2017, p. 137).

Table 3. The amount of academic load of language subjects at schools

Schools	Week load (hr)	Expected level of L2	Expected level of L3
Nazarbayev Intellectual school (NIS)	4–5	C1	C1
Bilim Innovation Lyceums (BIL)	4–5	B2 and C1	B2
Mainstream schools	2–3	B1	B1

Note. Source: Irsaliyev et al. (2017).

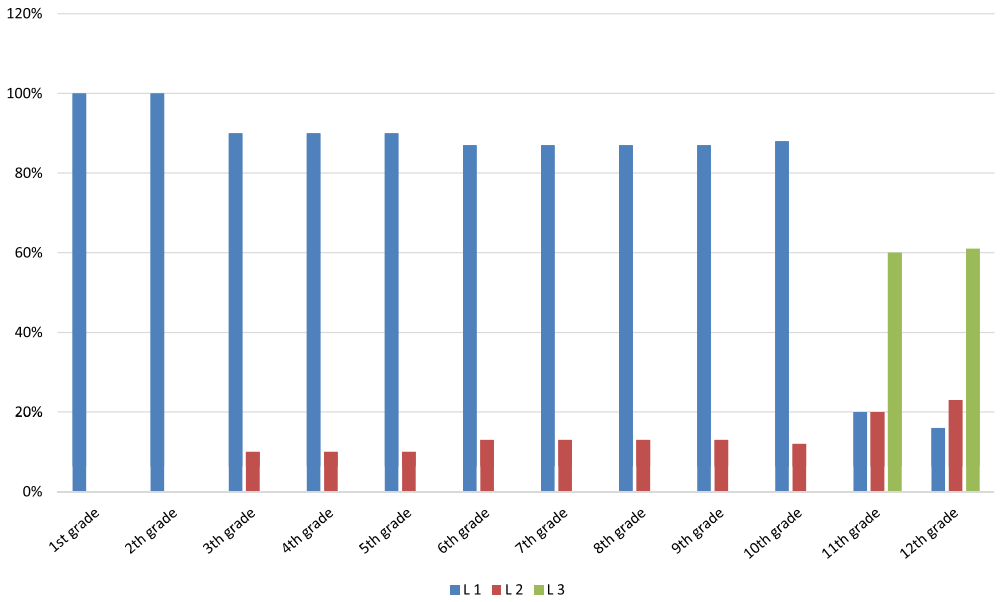

Figure 3. Model of trilingual education in NIS with time allocation for each language (source: Irsaliyev et al., 2017)

As NIS and BIL schools are regarded as piloting, they have different kinds of multilingual education development strategies and models, grading systems, and various time allocations for integrating all three languages. They are even facilitated by the different curricula. Those hopefully will show the right procedure and results and contribute to choose which pilot mode to apply to the other mainstream schools (Sagyndykova, Svinarchuk, & Kubrina, 2017).

Multilingual education in Kazakhstani HEI

There are three main bases of State Policy in the field of Higher Education in Kazakhstan (2017) the *Constitution of the Republic of Kazakhstan* (RK), the "*Law on Education*," and "*State Program of Education Development for 2011–2020*;" accordingly, higher education is open to those who have finished general secondary, technical, and vocational education or continuing education.

"Law on Education," first launched in 1999, is the core and primary law ensuring a general framework for HEIs in Kazakhstan to designate its strategy for development. In addition, this law attempts to shape a new national model for the country's educational system and it presents principles of the State Policy in the field of particularly higher education.

The Higher Education World Declaration in 21st century in accordance with UNESCO (1998) indicates the key point of integrating and developing multilingual education in HEIs such as "*the practice of multilingualism, teaching staff and students exchange program should be an integral part of all higher education systems*" (Article 15) cited in Kulsariyeva et al. (2017). Multilingual learning program provides the foundation of new models of education making the language culture the main foci. At present, the actions toward the implementation of that new education model in Kazakhstani higher education are being penetrated. This causes also the transformation of educational regulations and the arrangement of several departments in the universities, which are being implemented where polylingual teaching provides education using three languages (Toktamysova, 2012).

There are 125 HEIs in Kazakhstan. Among these, 54 belong to private ones and the other 16 are corporatized, 1 international, 31 non-civil, 9 national, and 1 autonomous (Nazarbayev University; Higher education in Kazakhstan).

Sagyndykova et al. (2017) provide a detailed statistics of the multilingual education development and describes it starting from 2012 to 2013 academic year 32 HEIs in Kazakhstan opened specific departments on multilingual education where the lessons are being conducted through English. In 2015–2016, the scope of those specific departments widened in 42 out of those 125 HEIs in the framework of trilingual education: 6 of them are national HEIs, 26 – state HEIs, 1 – international HEI, 7 – joint stock company HEIs,

and 2 – private HEIs (Sagyndykova et al., 2017). They point out that in 2015–2016, the number of multilingual groups increased to 2,393 in which 18,006 people are studying: 16,121 students are studying in bachelor degree, 1,662 in post-graduate education, and 223 in graduate education (Sagyndykova et al., 2017).

The teaching staff in multilingual education consists of 2,121 teachers who conduct lessons in English (Sagyndykova et al., 2017). In 17 universities, training in three languages began since 2012. They conduct teacher preparation in Biology, Chemistry, Physics, and Information and Communication Technologies in English as a medium of instruction. Since 2016, there is a transformation to the model of multilingual education "50:20:30" which means (50% of subjects are conducted in the first language, 20% in the second language, and 30% in the third one; Irsaliyev et al., 2017, p. 139).

Having researched the aforementioned details of multilingual education development in Kazakhstani HEIs, it is noticeable that trilingual education is rapidly advancing. Almost one third of Kazakhstani HEIs are implementing and penetrating multilingual education, which shows the significance and relevance of multilingual setting development on the national scope. Furthermore, according to Toktamysova (2012), the multilingual education implemented in Kazakhstani higher education is the unique program that embraces the conduction of training parallel and simultaneously in three languages (Kazakh, Russian, and English). She also emphasizes that all the works connected to the formation of multilingual personality in the roles of multilingual teachers and different kinds of teacher training and preparations involving multilingual education are accomplished and supported by the Ministry of Education and Science (MES of RK; Toktamysova, 2012).

The rapid development of multilingual education in Kazakhstani HEIs may cause some challenges as well. As it is regarded to be a new model, educational institutions face the lack of teaching materials and staff in the English language. For example, Kazakhstani scholars, Sagyndykova et al. (2017) indicate that the whole elaboration and organization of teaching materials in Kazakhstani higher education system are prepared by the universities. Special teaching staffs who conduct lessons in multilingual groups on a specific area, for example, Chemistry and Biology in Kazakh or Russian languages, usually fulfill the procedure of the teaching materials preparation. The new materials and manuals, online courses, dictionaries in three languages, and glossaries elaborated in Kazakh or Russian are translated and reviewed into English by the teachers of English in the English language department (Sagyndykova et al., 2017). It means that the most significant challenges in multilingual education in Kazakhstani HEIs are the lack of teaching staff with English knowledge proficiency. Despite the paucity of teachers with the proficiency of three languages (Kazakh, Russian, and English) all around Kazakhstan, professors invited from abroad also work in Kazakhstani HEIs mainly in the capital city and other megacities.

The development of multilingual education started in HEIs and there are two basic universities, such as Karaganda State University (KarSU) situated in the central part of the country and Nazarbayev University (NU) in the capital city Astana that are considered the bases of multilingual education. KarSU is contributing for the better development of a "Framework of multilingual education development in Kazakhstan" since 2008. The given framework involves all the necessary documents and teaching resources, scientific, and methodological supports as well as their implementation stages (Irsaliyev et al., 2017, p. 139).

According to Irsaliyev et al. (2017), one model of trilingual education in Kazakhstan is devoted to KarSU (Figure 4) and a different for the other universities (Figure 5) where multilingual education is being developed and expanded. In Kazakhstani higher education, the undergraduate (bachelor) education takes 4 years of study; thus, there are a total of eight semesters to fulfill for the students.

The first one (Figure 4) belongs to Karaganda state university, which establishes the framework for multilingual education development in Kazakhstan and the latter one is dedicated to other universities where multilingual education is developing. As it is delineated in the diagram while integrating trilingual education, the KarSU allocates several credits on English as a language of instruction only starting from the second semester along with English as a subject. It continues until the seventh semester, so it means that the students study English as a subject from the first semester and starting from the second semester they have the other subjects with English language instruction.

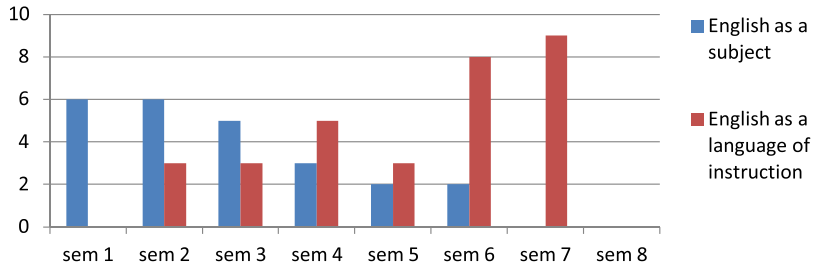

Figure 4. Model of trilingual education in KarSU academic load (credit numbers; source: Irsaliyev et al., 2017, p. 140)

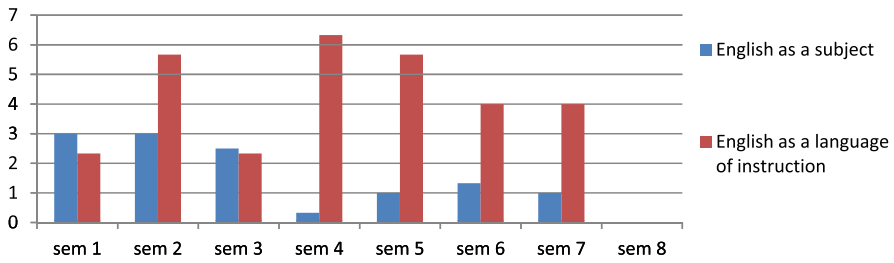

Figure 5. Model of trilingual education in universities (average) academic load (credit numbers; source: Irsaliyev et al., 2017, p. 141)

Implementation of English as a language of instruction in the second semester allows the students to acquire English language proficiency, even though sometimes it cannot be sufficient and in the seventh semester they wholly transfer to the English language instruction model. As it is illustrated in the diagram, the levels of English language as a subject and English as a language of instruction change every semester. In the eighth semester, students develop their teaching practices in schools; thus, they have no classes (Irsaliyev et al., 2017, p. 141).

In the trilingual education model of other universities, as illustrated in Figure 5, they strive to keep it somehow altogether by allocating credits both for English as a subject and for subjects with English as a language of instruction. Implementation of English as a language of instruction starting both from the first semester may lead to the deterioration of students' internalization on those specific subjects due to the lack of language proficiency of students. At the same time, it gives the advantage to provide with the credits for English as a subject until the end of their graduation. That contributes the students to support and enhance their knowledge of the language that will lead to better subject cognitions. Even though this kind of model can be a plus factor for trilingual education integration to make students study, for example, Biology, Chemistry, etc., from the beginning in English, it can cause problems concerning the students' understanding of the subject in English due to the lack of students' English language competence.

Conclusions

We present in this paper the understanding of the concept "multilingualism" and "multilingual education" with different approaches. We have analyzed various kinds of definitions of the given concept as well as decomposing multilingual education systems in different contexts including European nations and the case of Kazakhstan. Multilingualism policies are describing the stages of multilingual education settings development in countries. This article reveals very significant multilingual cases and different systems in multilingual education providing useful information in terms of different ways and models of developing multilingualism. It discovers that almost all multilingual cases are implementing diverse multilingual education both at compulsory schools and HEIs paying more attention to the right time allocation for language learning and CLIL method of teaching. We found out that several European countries, such as Finland, The Netherlands, Switzerland, Sweden, Luxembourg, etc., that have a successful experience in practicing and administering multilingual education. It is obvious from the aforementioned models of multilingual settings that these nations are mainly focusing on developing multilingualism mostly by providing the educational institutions with the right and possible amount of time allocation for the language-learning dimensions. Moreover, they underline the significance of the teacher training and additional training courses for the teaching staff to make the teaching staff be able to teach in multilingual settings.

Multilingualism is a solid experience of European countries but Kazakhstan has chosen its own way of developing trilingualism – multilingualism. Such development and intervention of multilingual education may serve as an implication for the multilingual education system of Kazakhstan and as the best practices for usage. Notwithstanding the best experiences of aforementioned European multilingual countries, the case of Kazakhstan in this field remains heterogeneous because of cultural diversity and various language backgrounds but nevertheless we opine that Kazakhstan can somehow benefit from these approaches too. Although with the thoroughly elaborated policy, the education system encounters a variety of issues: lack of teaching staff, lack of teaching resources, and aids. However, time by time with the development of teaching resources, the teaching environment is getting more favorable for multilingual education. Any reform requires an ongoing long time to achieve results. It is advisable to continuously follow and measure its development and implement changes whenever a correction would be needed.

On the whole, due to a great variety of multilingualism and multilingual education development models, this paper sets a number of insights for the practitioners, and researchers in the frame of comparing best experiences in the field of multilingualism in different contexts may serve as the possible alternative for the case of Kazakhstan in developing multilingual education.

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AB is a third year PhD Student at the Educational Doctoral School of the Eötvös Loránd University in Budapest. The author's research interest is dedicated to the issues of multilingualism and multilingual education, and with special focus on multilingual education development in HEIs in the context of Kazakhstan. The main research field grasps the issues of multilingualism approaches and multilingual education models, strategies from different perspectives, and in various contexts. AB was involved in study concept and design, statistical analysis, and study supervision.

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Ethics

Eötvös Lorand University approved the study. The number of research ethics approval is 2019/204. All subjects were informed about the study and all provided informed consent.

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Focus on the dropout students' secondary school experience and career orientation

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Abstract

We examined the characteristics of the respondents before entering higher education along with the clusters. We have discovered the characteristics of secondary school studies and further education, the circumstances for applying for higher education. During the analysis of secondary school studies, we took into account the type of class they studied in high school (in Hungary, they can study in high school, vocational high school, and secondary school), and how many times they changed school. In addition, we compared the results based on school maintainers. There is a significant correlation between the reasons for high-school experience and the dropout rate. In terms of cluster-based differences, it should be emphasized that the expectation of social mobility was overrepresented among the dropouts due to financial reasons and work, but it was also an important aspect that they did not have to pay a fee in the program where they studied. In addition, in the case of those who were disappointed in training and further education, it was most common to apply to the university because they did not want to work and could afford it. Our results can help to develop more effective dropout

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protection for students entering higher education, both in public and higher education institutions and career orientation.

Keywords: higher education, dropout, career orientation

Introduction

Higher education expansion in Hungary has not only increased the number of its students, but also the number of those who leave higher education without a diploma (Szemerszki, 2018). The Bologna system (introduced in Hungary since 2006) has not been able to effectively eliminate a large number of dropouts (Wolter et al., 2014 as cited in Pusztai, 2018). Although experts agree that the reasons for dropouts do not necessarily arise during the years of higher education, their remedy is, however, a priority for this educational level (Pusztai, 2018).

The study career of students dropping out of tertiary education is an unexplored area, and we do not have reliable data on the examination of the secondary school career either (Szemerszki, 2018). For a comprehensive, multidimensional approach, our analysis focuses on the high-school period, the motivation for further education, and extra points received when applying for higher education.

Papula (2008) summarizes the individual and social determinants of career choice as follows: personality (knowledge, biological heritage, self-knowledge, general and specific abilities, attitudes, achievements, interests, needs, and values), community, knowledge of their profession, labor market needs, educational attainment, the prestige of the profession, family background (education of parents, the parenting style, family values, and the place of the child in the family), socioeconomic status, and social structure (Csók et al., 2018).

In addition, career choice can be greatly influenced by the admission score obtained during the admission process and the extra points that can be earned. Based on the current Higher Education Act and the Government Decree on the Higher Education Admission Procedure, extra points may be claimed based on equal opportunities, study performance, and achievements. According to the literature, students claiming extra points on equal opportunities can be classified as non-traditional students (among them are disadvantaged and cumulatively disadvantaged, disabled, ethnic group members, and parents of little children; Attewell, Lavin, Domina, & Levey, 2007; Harper & Quaye, 2009). Their appearance in higher education can be dated at the turn of the millennium (Fenyves et al., 2017; Pusztai, 2011; Pusztai & Szabó, 2014) and, according to the literature, they have a higher dropout risk compared to traditional students (Fenyves et al., 2017).

In the framework of the NKFI research of the Center for Higher Education Research and Development of the University of Debrecen, we conducted our analysis using the

questionnaire survey database (Departure 2018) among the dropout students. The research team formed four groups of dropouts: (a) students who are disappointed in their studies and further education, (b) students who are uncertain about the reason for dropping out, (c) due to learning difficulties, and (d) dropout due to financial reasons and work (Kovács et al., 2019). Along these lines, we examined the period before entering higher education.

Secondary School Studies

As the first step in the study, we were curious about what experiences the respondents had in their secondary school studies. Of the 605 respondents surveyed, 12% of the respondents switched schools during their high-school years. Of these, 4.5% four or more times went to other secondary schools, 11.9% of the school-changing respondents three times, 19.4% twice, and 64.2% once. About 38.4% of the respondents completed their secondary education in secondary school and 61.6% did in high school. The majority of dropout students went to state schools (81.2%) and 15.6% went to church schools. In lower numbers, 13 and 5 people are represented by foundational and private secondary schools (2.4% and 0.9%, respectively). Seventy-five percent of the respondents received the higher education institution they had originally wanted. It seems there is a connection between school changes and school types as well. Thirteen percent of those graduating from secondary school belonged to school leavers, whereas 11.9% of high-school students came to another institution, whose rate is not considered to be extremely high overall (Figure 1).

However, the highest proportion of pupils in foundational schools changed schools during their high-school years. Regarding the number of school changes, there is a significant correlation between the number of school changes and the school maintainer (χ^2 test, $p = .016$). Simultaneously, there is a correlation between the possibility of school change

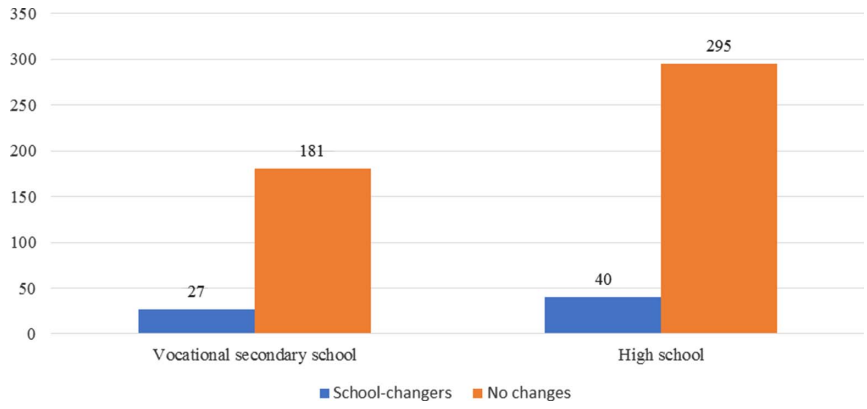

Figure 1. The number of school leavers and their proportion among vocational secondary school and high-school students (N = 476). Source: Departure (2018)

and the type of training attended in the year of graduation ($p = .030$); in the case of students studying in the evening classes, the proportion of school leavers is the highest, whereas in the case of full-time students, it is less typical. Based on the figure below, it can be seen that multiple school changes are more likely to occur in the case of full-time students, but there is no significant correlation (Figure 2).

Reasons for School-Changing and Dropout

About 90.2% of the respondents who indicated financial and employment problems did not change schools. The highest percentage of school dropouts due to learning difficulties can be found at secondary school, while the correlation is not significant. If we compare the reasons for the dropout and the type of secondary school of the subjects, we can conclude that the reasons for the dropout and the fact that the respondent graduated from secondary school or high school have a significant correlation ($p = .048$). About 61.5% of those who drop out for financial reasons completed their secondary school studies at a high school. The highest proportion of high-school students is among those who lose their motivation (70.8%), and the lowest rate is found in the cluster of dropouts due to learning difficulties (54.4%). Among the dropouts due to learning difficulties are the highest number of vocational secondary school students (45.6%), and the lowest proportion in the cluster of those who are disappointed in their studies and the institutions (29.2%; Figure 3).

We did not find any significant correlation between dropout clusters and whether the students studied in full-time, evening, or correspondence time training ($p = .079$). Among the uncertain subjects, the proportion of evening-training students is the highest (5.1%),

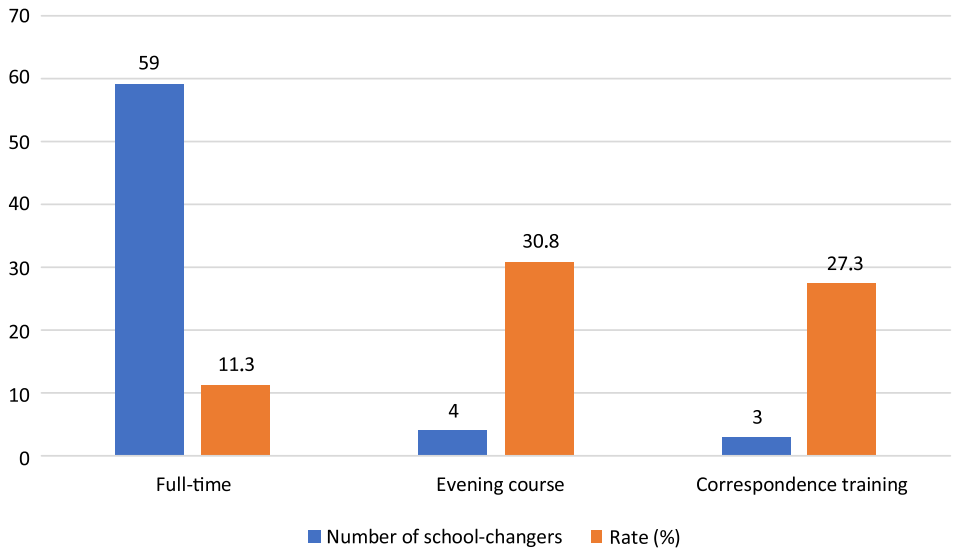

Figure 2. The number of school leavers in each class (66). Source: Departure (2018)

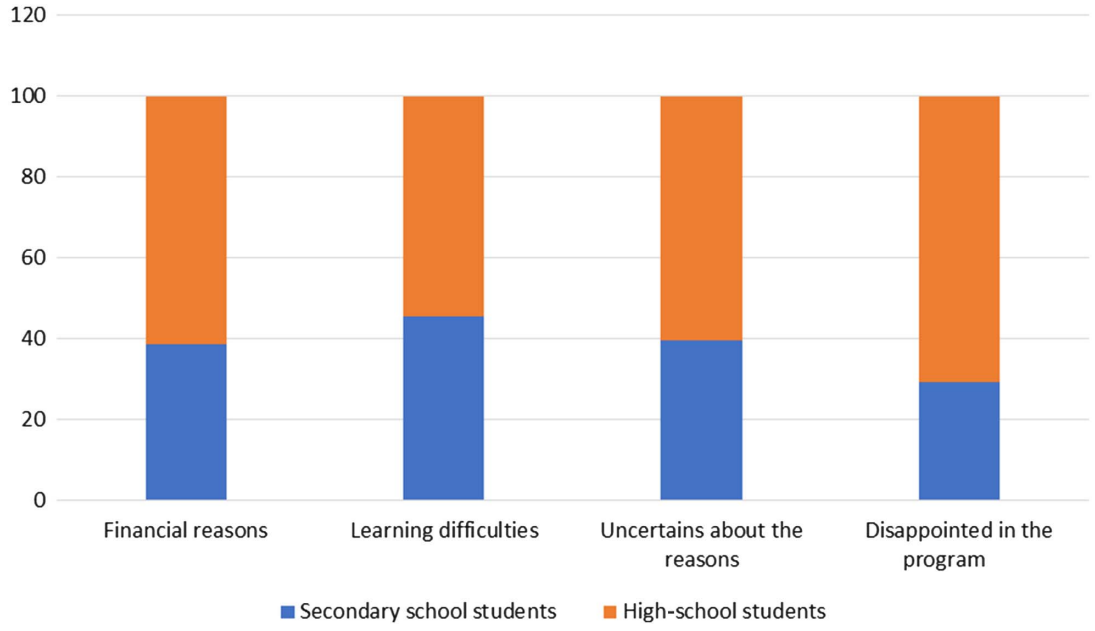

Figure 3. Reason for dropping out and type of high school (χ^2 test, NS; N = 553). Source: Departure (2018)

and the correspondent time-training students are the most represented here as well. The highest rates of full-time students (98.5%) are among those who are disappointed in the program and further education. Compared to dropout clusters, the highest number of students who are uncertain about the reasons is the evening, (61.5%) and the correspondent (50%), but based on the answers, there is no significant correlation between the graduates and the reasons for dropout. The division between clusters does not show a significant correlation with the school maintainer. However, it can be stated that dropouts due to learning difficulties and uncertain reasons are the highest among students coming from state schools, while those in church schools have nominated financial reasons and loss of motivation (Figure 4).

Career Orientation and Extra Points When Applying for Higher Education

We can categorize the factors that influence further education. In addition to individual and contextual systematization (Guay, Senecal, Gauthier, & Fernet, 2003; Papula, 2008; Patton & McMahon, 1997; Olteanu, 2015), some typologies are focusing on material, social, or cultural capital-like components (Fényes & Pusztai, 2004; Lannert, 2004; Pusztai & Verdes, 2002). To have a comprehensive, multifaceted approach, we focused our analysis on post-secondary studies, learning motives, and extra points on different titles. In our research, we discovered that the dropout students who did not start their higher education studies directly after the school-leaving exam, what they did later. The majority of the respondents spent time with work (most of them in their own country) or with learning.

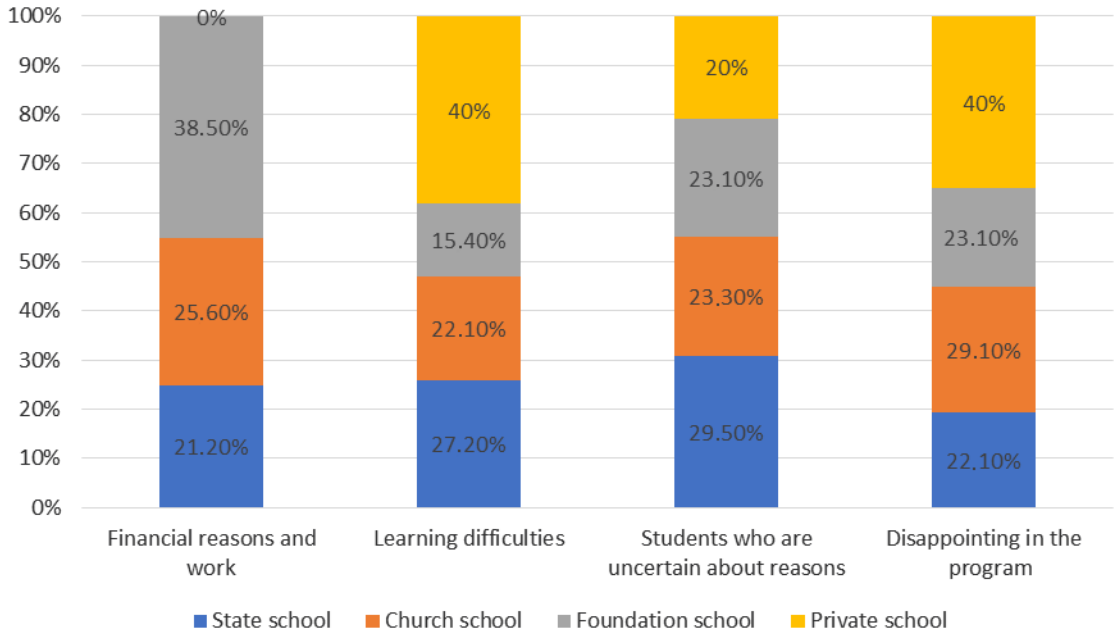

Figure 4. The relationship between school maintainers and dropouts (χ^2 test, NS; N = 552). Source: Departure (2018)

The proportion of those who were unemployed (nine people), those who were in "GYES" (childcare assistance in Hungary; six people) or were involved in a public work program (five people) could be considered relatively low in the detour group. From the comparison with the clusters, it can be seen that, before entering higher education, the proportion of people working in the home country was overrepresented among the uncertain students (Adj. resid. = 2.1), but the most typical form of activity for the dropouts for financial reasons was the same. Those who dropped out for study and institutional reasons, in addition to learning, have also indicated this at the highest rate (Figure 5).

As an explanation, students' employment is becoming more frequent and the causes of this phenomenon are complex (Bocsi, 2015; Gáti & Róbert, 2013; Kocsis, 2017). Making money-seeking activities – especially for non-traditional students participating in state-funded training – has enabled the financial conditions needed to maintain student life (Bocsi, 2015), which may extend to the period before inflow into higher education. In the case of respondents disappointed in the program, working was also in the second place, but several of them did not study in traditional higher education (e.g., higher-level vocational training). According to the literature, in the case of disadvantaged students with weaker academic performance, higher-level vocational training can be a kind of opportunity to facilitate entry into BA/BSc-level training (Fehérvári, 2014; Polónyi, 2014; Reisz, 2009).

The majority of dropout students came to higher education because of their desire for knowledge (87.5%). It has proved to be a very influential factor to find a job easier with a

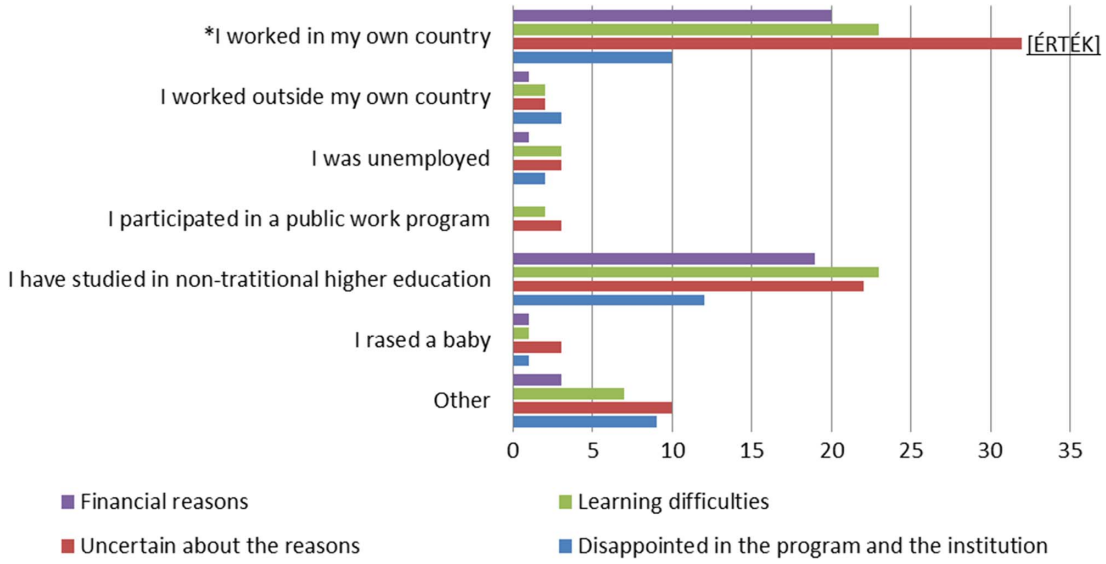

Figure 5. Distribution of activities performed in the period between secondary and higher education in the clusters of dropouts (%) (χ^2 test, $p = .027$; $N = 605$). Source: Departure (2018). The absolute value of the adjusted residuals for the underlined values is greater than 2

diploma (76.2%) and a profitable job (68.8%), as well as a desire for a recognized profession (68.2%). More than half of the respondents had the hope of social mobility (57.5%) and the creation of multiple relationships (54.4%), as well as the lack of tuition fees (54.2%) and the geographical proximity of the institution (51.2%). However, it was less decisive in decision-making that the person could afford financially (32.5%), did not want to work (24.5%), follow a family tradition (18.8%), or meet the job requirement (17.7%).

In the following, we examined the relationships between further study aspirations and clusters of dropout students. Figure 6 shows that in all groups the decision of the respondents was mainly influenced by the increase of knowledge and easier positioning with the degree. Our results are in line with the results of Márkus (2015), who, based on the data of a large-scale, quantitative research on the Partium (an area inhabited by Hungarians in Romania), found that the main motivation of those applying for higher education is the desire for knowledge, besides the hope of more favorable labor market opportunities. Regarding the differences between clusters, it should be emphasized that the expectation of social mobility (69.6%, Adj. resid. = 3.1) was overrepresented among the dropouts due to material reasons and work and that no tuition fees had to be paid for the program they participated (66.2%, Adj. resid. = 3.0). Furthermore, it was the most typical of those who were disappointed in their studies and further education that they did not want to work (32.0%, Adj. resid. = 2.2) and could afford it financially (43.0%, Adj. resid. = 2 8; Figure 6).

In the following, we examined how the clusters with different dropout patterns can be described based on the extra points used during applying higher education.

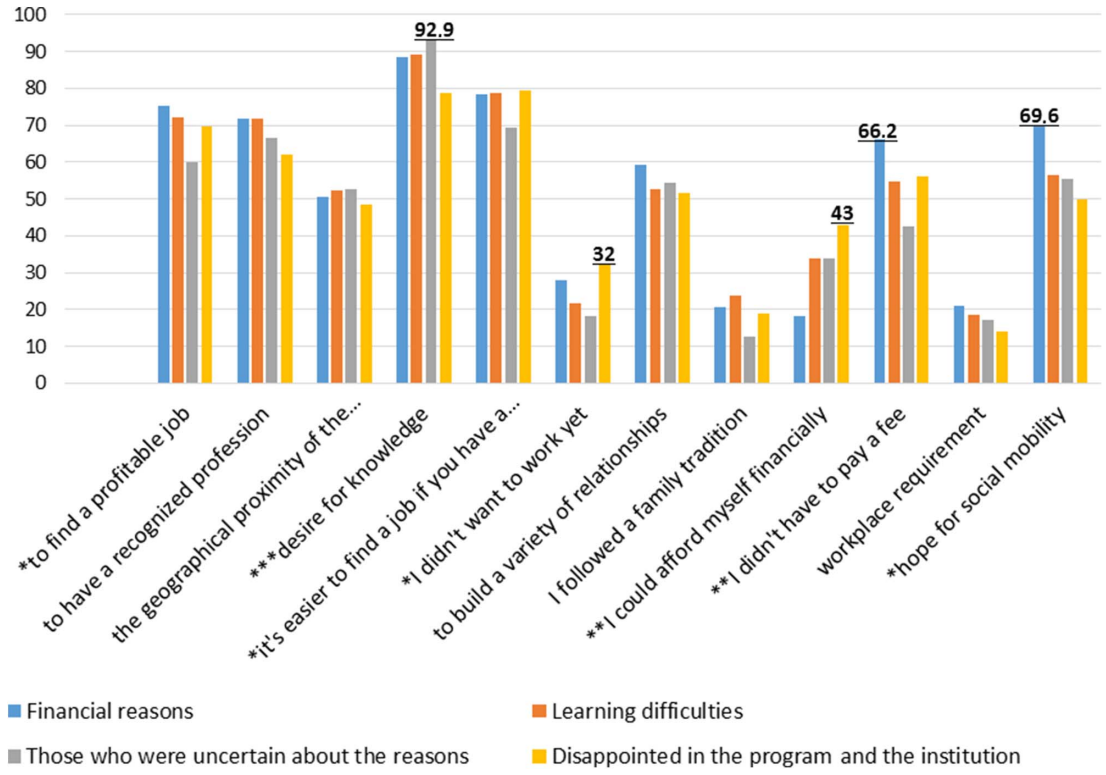

*Figure 6. Distribution of learning motivation in dropout clusters (%) (χ^2 test, N = 605) (*p ≤ .05. **p ≤ .01. ***p ≤ .001). Source: Departure (2018). The absolute value of the adjusted residuals for the underlined values is greater than 2*

Although we expected that the dropout rate for outstanding academic performance among school dropouts would be low, the answers show the following distribution. Most of them were awarded extra points due to the passing of an advanced-level school-leaving exam among dropout respondents, representing 30.5% of the total sample. The proportion of those who have a language exam is also high. Their proportion is 28.2%. Although the group of those claiming extra points for disadvantage is the third in the row based on the proportions; however, the proportion of those who have reached the advanced-level school-leaving exam and language exam is lagging, whereas the proportion of those claiming extra points for disadvantage is 9.5%. The proportion of those with advanced-level language exam is 8.9% of the sample and 8.5% of the OKJ degree (a form of adult education in Hungary). Percentage of students requiring extra points for sports competitions is 4.3%, and, in the case of study competition, the rate is 3.3%. There is a low proportion of people with multiple disadvantages, people with disabilities, ethnic group members, and parents of little children. Their ratio is 2.9%, 1.9%, and 1%–1%. The low proportion of those claiming additional points on equal opportunities is the same as in the literature and earlier researches, which show that they are present in higher education in a very small number. If we look at the reasons for dropouts, among those who got different extra points, it appears that dropouts due to educational reasons are among those with an advanced-level school-leaving exam, advanced-level language exam, those

who got extra points for study competitions, and people with disabilities are very high (Figure 7). The financial reasons are most common for those who are in a disadvantageous and cumulative disadvantage, as well as those who require extra points for OKJ certification. The disappointment in the program is higher among those who have passed the intermediate language exam than other reasons, and the uncertainty in the causes is typical of students belonging to the ethnic group and requiring extra points for sports performance. In the case of qualified respondents, students who are disappointed in the course are underrepresented. This suggests that a certain degree of deepening in the professions of their choice has already taken place before the start of higher education. This deepening can increase the commitment to studies and the chosen degree of science, serving as a retaining force during the higher education years.

Compared to students who have received extra points for equal opportunities and outstanding performance (Figure 7), dropout students have a higher percentage of those who have earned extra points for some outstanding performance, including advanced-level school-leaving exam and intermediate language exam. However, as the data are not suitable for examining how many percent of people who are eligible for the various extra

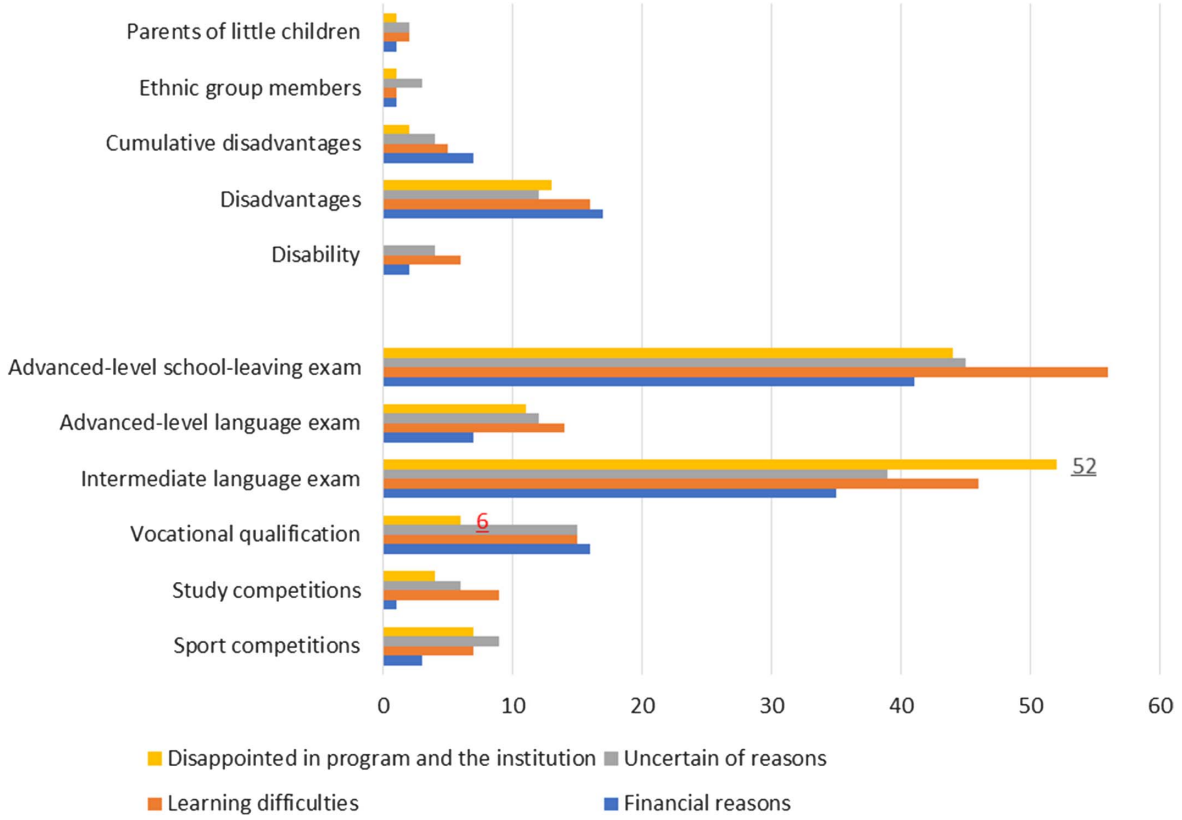

Figure 7. The proportion of those eligible for different extra points in clusters of dropouts (%) (Quarter test, NS; N = 605). Source: Departure (2018). The figure is shown separately for those who qualify for bonus points (above) and extra performance (below)

points are crumbling, and the current results do not show a significant correlation along the clusters studied, we cannot make clear statements about which groups are more vulnerable to dropout.[4] However, it can be said that while groups of students asking for equal opportunities are generally experiencing financial difficulties – perhaps because they did not receive real assistance in their difficulties after entering higher education – paradoxically, for students who earn extra points for outstanding performance, the reason of learning difficulties is the most common in their dropout.

Summary

In all secondary schools, more emphasis should be placed on career guidance programs. Career guidance programs would be required where a well-trained team of professionals (who are well versed in the offer of higher education, the nature of the training, and the labor market), in collaboration with the classmates and parents, helps students to take their individual interests, goals, abilities, and opportunities into account in their further education decision. Complementing this with a series of lectures where invited speakers (such as instructors, graduate students, senior students, etc.) provide information on individual disciplines, higher education requirements, difficulties and opportunities, merit and social scholarship opportunities, mentoring programs, and expected costs (Kovács et al., 2019).

It would be advisable to complement the career guidance opportunities by raising awareness of the differences in studying in public education and higher education, and by presenting concrete experiences and learning methods, even if the candidate has proved successful in their public education years (e.g., they have a language exam, or an advanced-level school-leaving exam). In addition to learning methods, it can also help to reconcile work with studies, as well as focus on longer-term financial rewards for a degree (Kovács et al., 2019).

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[4] According to Ceglédi (2018), in the absence of significance, we investigated the extent of adjusted standardized residuals, the results of which prove to be relevant and useful to our research questions in the exploration of certain hiding correlations.

Education at the University of Pécs. Her main research topic is the history of nursery school teacher training from the middle of the 20th century. She was also involved in study concept and design, statistical analysis, and interpretation of data.

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All authors had full access to all data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Ethics

The study procedures were carried out in accordance with the Declaration of Helsinki. The Institutional Review Board of the Institute of Educational and Cultural Sciences (University of Debrecen) approved the study.

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Discussion Paper

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R&D partnership: The CEE story of the "Comprehensive Movement"

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Proposal Information

Aim

The research aims to explore the links between school development and the demands of local communities in present-day Central and Eastern European (CEE) societies.

Rationale

Before the sociopolitical turn of 1989/1990, schools in Hungary and East Central Europe were strictly centralized and monopolized by the communist parties and the governments. Schools and curricula were centrally managed, subjects (e.g., Russian language teaching) were prescribed and compulsory, and the structure of education was uniformly defined – throughout the region – without considering the demands of the consumers

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(the local population). As an outcome of the Helsinki Process (since the mid-1970s), this rigorous centralization began to ease. In some countries (Poland, Czechoslovakia, and Hungary), new changes have been emerged (Cerych, 1997). The most well-known of them was the so-called "Comprehensive School." A "New Deal" between "the Party" and the people involved more room for maneuvering for local communities and more flexible government policy considering some local needs and demands. This process has accelerated after the political turn of 1989/1990, especially in some countries (Poland and Hungary). As a result, the local population (its political actors) put increasing pressure on the government institutions (including the local schools) to meet their local needs and demands.

Background

The "Comprehensive Movement" emerged in the 1960s and 1970s throughout Europe (Levin, 1978). In many of the member states (Laender) of the Federal Republic of Germany, lower secondary education has been restructured (Mitter & Shaw, 1991). Grades 7–9 were reconstructed during the long and well-designed Swedish school reform (Husén, 1989). Comprehensive secondary schools were also established, advertised, and published in England (Manning & Pischke, 2006). The role of local communities in the CEE states was increasingly emphasized during the process of the sociopolitical turn (1989/1990). The movement in Western Europe has the political aim to reduce social inequalities (Ford, 2006). In the CEE states, however, the role of the comprehensive school movement was to increase the influence of local communities on the schools (Kozma, 2018; Kozma & Tozser, 2016). By this way, the comprehensive issue in the CEE states became part of the long-debated question of "school and social environment" (Egelund & Laustsen, 2006; Viteritti, 2012). The new wave of educational centralization after 2010 in Hungary threatened the influence of local communities, which they had received by the political turn of 1989/1990. How do local communities try to enforce the influence on their schools in the new wave of educational centralization today? It is the question of the current research. This research fits into our research interests on social innovation, which is reported in NW 15 at ECER 2018 (Forray & Kozma, 2018).

Methods

Field of study

Two upper secondary schools (ISCED 3) were selected from the central region of Hungary (Kozma et al., 2018). One of the secondary schools (X) came under the direction of the Ministry of Human Resources after the centralization process of 2010; the Ministry of National Economy runs the second one (Y). Before 2010, both were comprehensive in the sense that they offered general and vocational education and training programs

"under the same roofs" according to the needs and demands of the local population as well as the local economies and service sectors. Their "comprehensive school" profiles have been developed during the years after the political turn of 1989/1990 when the local administrations owned those institutions.

Information sources

The most important source of information was the interviews with teachers, heads of institutions, and political actors of the local communities (26 interviews between 2014 and 2018). Interviews were completed by personal observations (field studies). The results obtained were compared with those findings we obtained, studying cases, and stories of local social innovations (Kozma, 2016). We also obtained statistical and background data from official sources (Central Statistical Office, 2016, 2018).

Story-telling and narratives

We put particular emphasis on collecting narratives we heard from the interviewees (Hyvarinen, 2012). This method was used because the shifts of government education policies and their impact on institutions and their former local authorities after the year 2010 were a political transformation process. In our opinion, political transformations can be traced and followed primarily through stories of the political actors involved (Kozma, 2018).

Results

Based on the needs of the local population over the years (1990–2010), both schools have become more responsive (both academic and vocational programs). After 2010, the Ministry of Human Resources has transformed School X from a comprehensive school to a purely academic-type institution. Because of this, local people cannot study a profession at School X anymore. The local community and its leaders now feel that they are no longer partners with the institution. The Ministry of Economy has transformed School Y into a vocational training institution, in which, students, if they want, may choose academic programs. Institution Y is increasingly involved in the local economy; in addition to this, it became a partner of the nearby higher education institution (a place for practice). The institution is constantly becoming the town's most important educational and cultural center.

Conclusions

The "story" of Schools X and Y is an example of the importance of R&D partnership in education. Schools are not only the institutions of the local community, nor are they

exclusively government organizations (in Central and Eastern Europe, the state and its authorities own about 80%–90% of the educational institutions). The "Comparative School" idea expresses this shared character well. The school is an organization that is influenced by the government on one hand and by the local community on the other hand. The influence of these two actors is in a dynamic balance. Traditional educational research recognized this dynamic balance for a long time. However, traditional education research usually approaches the schools from student performances or institutional management. The dynamic balance and its importance can only be understood if we consider schools and local communities as partners that collaborate in studying, developing, and maintaining the school as a government/local organization.

Keywords: comprehensive school, political transformation, Central Europe, social innovation

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Value crisis and change of values: In the mirror of social values and history education in Hungary

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Proposal Information

In recent years, factors suggesting that we are living in a world risk society (Beck, 1997, 2007; Beck & Grande, 2004) have been strengthening. Economic and political crises, increasing poverty, new migration flows, political populism gaining strength, and technological changes (ICT and web2), in addition to the intensifying European youth vulnerabilities specified at the beginning of the century (Furlong, Stalder, & Azzopardi, 2000; Znidarec Cuckovic, 2014), create new vulnerabilities for child and youth generations both in Europe (Sortheix, Parker, Lechner, & Schwartz, 2017) and in Hungary, such as the crisis of freedom, solidarity, empathy, values of autonomy (crisis of universal humanistic values and crisis of European values), furthermore exposure to manipulations of the post-truth era, and the "fear industry" (Beck, 2007). The influencing effects of the mass media have become dominant on young people's thinking. Along with the appearance of web2 and smart devices, time spent on talking with the family is decreasing; thus, the impact of the family on young people's thinking and value orientations is also decreasing. The role of peer groups has been revalued. In most recent years, real,

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face-to-face friend communities have been taken over by virtual youth interpreting communities and influencers guiding the individual. As a consequence of all, in Hungary, school-age children use the Internet and social media as a basic source of information, which thus become fertile grounds for hoaxes, misconceptions, manipulative grouping of information, and claiming false facts. This vulnerability is reinforced by the phenomenon of increasing isolation and seclusion, measured among Hungarian youth (Gabor, 2012; Jancsak, 2013; Zsolnai, 2015), which means that children and young people leave the filter system of traditional interpreting communities (family and peer friend communities) that would restrict the spread of misconceptions and manipulation (Galan, 2014; Kasik, 2015). The Hungarian educational system is not prepared to provide answers for this phenomenon. This applies for the school subject of History and Civic Education, which provides civic education within the frameworks of educational documents (National Core Curriculum), with its key task to sensitize (educate) students in Grades 8 and 12 of public education (14- and 18-year-olds) into conscious, active citizens. Our earlier studies reveal that history education, due to its textbook-driven nature, performs its democratic education function to a lesser extent; contents reflecting on civic education issues are absent from history teacher education, and teachers do not feel prepared for this task (Jancsak, 2018).

Relying on the value theories of Rokeach (1968, 1973), Schwartz (1992, 2006), and Rezsohazy (2006), our research focus was whether the phenomenon of value crisis/value change could be detected among Hungarian children and young people in two school-life phases that are significant from the perspective of civic education. Our other research question aimed at discovering whether the phenomenon of value crisis appears, and how it appears, among teachers of History and Civic Education. Furthermore, we investigated what opinions students and history teachers hold concerning value transfer processes that are and that could be realized within the framework of History as a subject in case of certain European (universal and humanistic) social values, such as freedom, solidarity, autonomy, democracy, right for making decisions, critical thinking, active citizenship, and empathy.

Methods

The empirical data of the present paper were gained through my studies conducted in Hungarian public education institutes. Questionnaires were administered in two age groups: among 8th graders in primary school (14-year-olds) and among 12th graders of secondary school before their Matura exams (18-year-olds). The first data collection happened in the spring of 2017 and the second is happening in the spring of 2019. The venues of data collection were the 28 partner schools of the Hungarian Academy of Sciences – University of Szeged Oral History and History Education Research Group. In the two data collection phases of the research, questionnaires were and are administered among history teachers as well (2017: $N = 133$, planned for 2019: $N = 200$). The items on

our questionnaire were based on Gabor's (2012) adaptation of the questionnaires applied by Rokeach (1968), Inglehart (2000), and Schwartz (1992), for Hungarian youth research, and specified for the democratic and civic competencies expected to appear in history education according to the Hungarian National Core Curriculum, and also supplemented with a group of questions on values of democratic competencies, critical thinking, historical thinking, and active citizenship. The independent variables of this study, in case of the students, are sex, age, cultural capital of family (parents' qualifications and talking about historical and public topics), economic situation of family (financial situation), the interpreting community role of peer friend communities made up of real people, and online user habits. In case of the teachers, the independent variables are sex, age, year of earning a degree, and participation in further trainings.

Conclusions

According to our expectations, in the two data collection phases, changes in the social environment of the youth and school in Hungary (e.g., the communication environment appearing in connection with the European Union and migration), the opinion forming of virtual interpreting community platforms (websites, Facebook, YouTube, and Twitter), and the reception of manipulative media contents all had an impact on students' value orientations and structure of value judgments. This study revealed the expected research findings that the phenomenon of value crisis/value change (Rezsohazy, 2006) means the devaluation of universal (European) values and the preference of material values of a new type (financial well-being vs. equality, consumption vs. environmental awareness) and the preference of individual values (egocentrism vs. empathy, experiences vs. solidarity, individual vs. community, benevolence and altruism vs. stereotypical thinking and hate). Simultaneously, it is also assumed that, in case of History and Civic Education as a subject, there is a chasm between the teachers, who are more sensitive from the point of view of critical and historical thinking, and new generations, being formed in school, who are exposed to new vulnerabilities.

Keywords: social values, value crisis, civic education, history education

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Toward the pathway of sports school students: Health awareness and dropout as the index of academic and non-academic achievement

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Proposal Information

Several factors can stand in the background of the dropout of the student from an educational institution namely learning difficulties; social problems; or the lack of motivation, direction, or support. School dropout cannot be predicted by only one factor as the determinants are in connection during the progress (Fenyves et al., 2017). For the investigation of the various factors, the Bronfenbrenner's ecological system model (1979) can provide a basis. The model distinguishes the onto-system (the individual and its genetic, physical and psychological characteristics), the micro-system (family, nursery, school, healthcare services, etc.), the meso-system (close and distant components such as the collaboration of the institutes and organizations), the exo-system (the broader material, cultural or political environment, and community), and the macro-system (local, regional, national, governmental, and social decision-making practices; Morin, Terrade, & Preauc, 2012). The low educational level does not only have serious consequences for the pupils concerned but also has a negative impact on the educational system at the level of the budget and on the social level (an aging society needs everyone on the board;

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Merce, Anda, Petroman, & Ciolac, 2015). This is an important question in the sports school system as well as the phenomenon namely changing sports club, moving and thus changing educational institution can be more frequent among (elite) athletes; however, this topic has not been investigated yet.

Another significant question is the connection between dropout and health behavior and health awareness. Previous studies have already confirmed that health-damaging behavior correlates with worse academic achievement and a higher dropout rate. The positive relationship between school absenteeism and early school leaving can already be regarded as evidence. Smoking increases the chance of early school leaving (Cox, Zhang, Johnson, & Bender, 2007; Ferguson, Horwood, & Beautrais, 2003), and the same can be said regarding substance use, since the chances of dropping out are almost one and a half times (i.e., 1.37 times) bigger among those who are daily consumers of illegal drugs and it is even higher if it started before the age of 14 years (Legleye et al., 2009). The results of the previous investigations measuring the relationship between alcohol consumption and school dropout are ambivalent. Among regular consumers, academic achievement (grade point average) is lower (Balsa, Giuliano, & Frenchc, 2011) and the rate of dropout is higher (Wichstorm, 1998). Controversially, according to Legleye et al. (2009), the experience of drunkenness did not correlate with academic achievement. Our previous research conducted among sports school students revealed that academic achievement also showed a negative connection with risky behavior and a positive connection with health behavior (Health-Behaviour of Students Learning in Sports Schools and Traditional Schools 2017 project [Sportiskolák és Hagyományos Köznevelási Intázmányek Tanulóinak Egészségmagatartása 2017 kutatás]; Kovacs, 2018). Students who dropped out are more likely to have mental health problems, for example, depression, aggression, self-evaluation, etc. (Chatterji & DeSimone, 2005; Liem, Lustig, & Dillon, 2010; Roebuck, French, & Dennis, 2004). In this study, we measured the dropout intentions, dropout rates, and health awareness of students learning in sport schools and in non-sport schools; furthermore, the connection between dropout intention and health awareness was investigated as well on the basis of focus group conversations.

Methods

In our research, the students of four sports schools (secondary educational institutions with a special program for developing sports and academic career with A-level exam at the end; one in Budapest and three in the country) and four non-sports schools (one in Budapest and three in the country) were examined through focus group discussions. In each institution, 10th grade students were interviewed about their academic and non-academic achievement (health behavior) and their dropout intentions ($N = 80$). According to the focus group discussions, the participants talked about their attitudes toward their educational institution, the atmosphere of the school, their future plans, as well as their academic and non-academic achievements. The conversations were based on

the following key issues: “What specialization do you learn?” “What do you think of this class?” “What are your plans for the future?” “Have you thought about studying in another institution? If so, why?” “Did you change school during secondary education? If so, why?” “To what extent would you change school on a 10-point scale?” “What are the factors due to that you would leave the institution?” “How health conscious are you on a 10-point scale?” “What do you think about smoking?” “What do you think about drinking?” “What do you think about drugs?” “What do you think about anxiety? How anxious do you feel on a 10-point scale?” “What do you think, how important is coping in life? How can you cope with the obstacles and problems on a 10-point scale?”

The aim of the research was to compare students of sports schools and non-sports schools with regard to the dropouts, the intentions of dropout, and health awareness. Our further aim was to examine the relationship between health awareness and the intention to drop out. During our research, the following questions were formulated:

1. The intension of dropout and the proportion of dropout are higher among students learning in sports schools.

2. The level of health awareness is higher among students learning in sports schools.

3. The higher level of health awareness correlates with the lower level of dropout.

The data were analyzed using SPSS for Windows, version 22 (IBM, New York, USA). Due to the distribution of the data (Kolmogorov–Smirnov probe, $p < .001$), Mann–Whitney probe was used for the between-group comparisons, Spearman’ rank correlation method was used to measure the strength of the relationship between the variables, and χ^2 test was applied for the measurement of differences in the distributions.

Conclusions

According to our results, the intention of dropout and the real proportion of dropout are higher in sports schools. In the sports schools, dropout intentions were based on changing sports club (34.8%), dormitory problems (30.5%), academic difficulties (13%), relocation (8.7%), school climate (8.7%), and the risk of low academic achievement (4.3%). In non-sports schools, dropout intentions were based on academic failures (50%), academic difficulties (30%), and school climate (20%). Among sports school students, the factors causing dropout were related to changing sports club (33.4%), dormitory (22.2%), learning difficulties (22.2%), relocation (11.1%), and school climate (11.1%), whereas among non-sports school students, dropout was caused by relocation (60%), learning difficulties (20%), and school climate (20%). It was also claimed that sports school students have a higher level of health awareness. Based on the results of the

Mann–Whitney *U* test, there are significant differences in the attitudes and perceptions of alcohol consumption, health awareness, anxiety, and coping. Simultaneously, subjective health consciousness and attitudes related to smoking and illegal substance also show tendentious differences. Thus, sport school students can be described with better anxiety and coping parameters, primarily due to the regular physical activity itself. Finally, with regard to the relationship between the intention of dropout and health awareness, it can be stated that subjective health awareness and coping have a moderate positive relationship, whereas anxiety has a moderate negative relationship with the dropout intention of the students. The results highlight the importance of issue, so the institutional choice of sports school students will also allow us to examine the issue of interoperability between sports school institutions. Through this, the pathway of the dual sports and academic career in the primary and secondary educational systems could be measured.

Keywords: dropout, health behavior, sports school system

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***Reviewed by Ágnes Hornyák*[1]**

The present volume introduces the first results of the LearnInnov Project (Community Learning and Social Innovation) and the chapters show the theoretical frame of the research project, its first results, methods, and future perspectives.

The LearnInnov Project has grown from the LeaRn Project (Learning Regions in Hungary, 2012–2016). The result of the LeaRn Project was a cartographical map of learning regions, cities, and communities in Hungary. The LearnInnov Project dealt with several questions. How will a territorial unit transform into a learning community? What do the inhabitants need for it? How can it be supported? The LearnInnov Project aims at discovering, describing, presenting, and analyzing social innovations by which territorial units might become learning communities.

The main concept of the research is "Social innovation," which means grassroots initiatives that change the community and prove to be sustainable. Meeting the challenge community hunts for new information, knowledge, and competencies. Social innovation is closely related to social learning.

The first chapter of the book tries to explain the relationship between social innovation and community learning.

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This volume interprets "Social innovation" as such, highlighting two particularly important motions: networking and learning. Social networks change and transform continually. Innovations are stemming from this dynamics of the networks. The place of innovators in the network determines the birth and spread of innovation. Organizations are built up slowly but collapse hard. Networks are vulnerable, but they are reorganized quickly. Sustainable innovations arise from the ideal cooperation between organizations and networks.

In the second part of this volume, we can read about the methodological background of the research. The research attempts to examine the role of learning: adult learning and community learning are overcoming disadvantages and the ways and means by which a community might break out of its disadvantaged situation.

The first step of the research is the investigation by the indices: area, population, migration balance, aging index, rate of unemployment of the region (mostly township) under survey, as well as the proportion of unemployed young job seekers, the number of enterprises in operation for 1,000 residents (pieces), and the number of registered NGOs for 1,000 residents (pieces). The second is taking the data of the LeaRn index generated in the Learning Regions in Hungary research, as a point of departure. Using the LeaRn database, the township results are compared with national averages, the standing of the settlements in the township are examined and compared to those of similar social and economic standing.

In the next part, we can read about some settlements namely about Drávafok, Tésenfa, Földeák, Hajdúnánás, Hajdúhadház, and Sátoraljaújhely. I would like to introduce the community projects and its effects in Hajdúhadház. The case study attempts to show the role that learning can play in overcoming disadvantages, how learning contributes to the development of settlement and region through innovative initiatives, and what about cultural learning (fields of sport and the relationship between sport and learning in the district of Hajdúnánás and in the center of the district). There are several prominent types of sports: football, handball, swimming, karate, kendo, kayak and canoe, wrestling, and athletics. Based on interviews with trainers, association managers, and players showed what is necessary for making a community, how sports can contribute to the development of a community, via learning to the children's and parents' physical and mental as well as spiritual development, the role of sport in learning and community building, long-term population retention is also seen as a goal.

Conclusions are the "local heroes" and the actors involved the value and motivating power to start learning, shaping communities, improvement of the quality of life, reaction to lifestyle changes, the related learning, and the learning and intergenerational effects of the community experience.

We can read about other community activities in other researches, for example, local festivals, local knowledge gatherings, local environmental protection (e.g., park care), local music bands and choir, pilgrimage organized by the local parish, various sports and games events, and martial arts.

In fine about the conclusions: bottom-up and top-down initiatives have to go hand in hand and social innovations (local initiatives) are compulsory for the recovery of rural Hungary, building a national policy on those social innovations.

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Gigalová, V. (2018). Management imagination. Decisions of managers, rationality, intuition, and metaphors. Olomouc, Palacký University

***Reviewed by Kristýna Ambruzová*[1]**

PhDr. Veronika Gigalová, PhD, is a lecturer at Palacký University Olomouc. She belongs to the Department of Sociology, Andragogy and Cultural Anthropology. Her focus is on the theory of organization and organization in today's social context. At present, she is researching on the topic of managing the decision-making process and mostly its intuitive part. She has written more than 10 other publications.

In general, this book deals with managerial decision-making, which (if we want to know them irreducibly and understand it more deeply) we also have to understand two contradictory levels: rationality and intuition. There is no clear border between these categories, although managerial decision-making is generally understood as a purely rational process. The publication points to the fact that, not only knowledge, experiences and emotions influence our decision-making. In addition, we often have to decide intuitively. The concept of this publication comes from research based on interviews combined with the theoretical knowledge from various literature.

This book consists of three main chapters. The first chapter deals with managerial decision-making and its process. Decision-making is one of the most important functions of managers, which fulfills mainly in planning process. The analytical model of decision-making is a process with several steps. Veber's very detailed model contains identification

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of the problem → analysis and formulation of the problem → evaluation criteria → creation of variants → setting their consequences → evaluation of the results and choosing from the variants. Two more steps are realization and control of the outcomes. On the other hand, the rationally emotional model makes importance in choosing from an ideal version and it also assumes the complex knowledge of all the possible results, but the main difference is in choosing the final solution. Moreover, today, organizations go through several changes all the time; these new situations need a team of managers that can deal with it. Management needs to be ready for specific conditions, such as time pressure, limited information, absence of suitable people, mental or emotional burden, etc.

The second chapter deals with intuition in the decision-making process. There are three main theories (models). Gigerenzer's theory of heuristics states that usage of these theories might be a successful instrument for decision-making because of its simplicity and rapidity when it comes to changes in the organization. He argues that heuristics should not lead us to conceive of human thinking as riddled with irrational cognitive biases, but rather to conceive rationality as an adaptive tool that is not identical to the rules of formal logic. Daniel Kahneman on the contrary says that intuition may cause problems and its inaccurate and simple heuristics can be distorted by our first impressions. Later, Hogarth comes with a kind of solution for these two models; he connects all the factors that influence the decision-making process. "*We often decide on the basis of what catches our attention at first place before we rationally consider all the possibilities*" (Hogarth, 2010). His theory offers simplified model of the real decision-making process, which shows how to use intuition in this process. What influences rational and intuitive decision-making in the first place are emotions. Expected emotions are the ones that might be used in the future; they are often suppressed by immediate emotions, which makes them less important and have bad consequences and it causes mistakes in decision-making. Immediate emotions are the combination of expected consequences, emotions, and random influence. Secondary emotions in the form of somatic marker enable to make rapid moral decisions under time pressure. Somatic marker hypothesis is interesting. We can talk about them as emotional reactions with a strong somatic part that supports decision-making, including rational decision-making. These reactions are based upon the individual's previous experiences with similar situations. According to the hypothesis, somatic markers strongly influence later decision-making. Within the brain, somatic markers are believed to be processed in the ventromedial prefrontal cortex and the amygdala. Moreover, the attitude of the organization can support or suppress the usage of intuition in the decision-making process. Intuition supported by the manager's experience and knowledge is more reliable, so managers can benefit from intuition only at the point when intuitive knowledge is stronger than the explicit one. It is useful in complicated decision-making situations, where the ability of the managers to make a moral decision is absolutely necessary.

The last part of the book introduces research on why and how managers use metaphors in their decision-making. The main research question was "How managers rationalize their decisions?" Decision-making is an unconscious process, which is usually rationalized by superiors or subordinate afterward and needs to be justified by managers, so metaphors are what helps them. According to most definitions, a metaphor is a figure of speech that describes an object or action in a way that is not literally true but helps explain an idea or make a comparison. Metaphoric saying reflects their previous knowledge and experience as well as the emotions and feelings at the moment. The research includes interviews with 18 managers from different types of organization. Three questions were asked during their interviews. What type of organization and manager place do they have and how long do they work in? How would they describe the recent decisions they made? In which situations they realize the decision-making process? This was enough for the managers to start talking about their work and rationalizing the decisions they made. Three types of metaphors were used in three phases. Upon considering established systems, they use general metaphors that can be found in everyday communication. In the second phase, they were using metaphors that are used for specific situations in their organization. The last type of metaphors is the ones that come from the personality of the manager, so they give reasons "how and why I do it like this." This type is used very rarely in unexpected situations. From the interviews, two categories could be seen: using plural to describe the organization and singular to describe employees. There are some frequently repeated metaphors in both categories, which refer to a specific object. Organization as a machine, where the organization is understood as a precise mechanism, works in a very rational way and the rules must be followed. Organization as a Moloch also has exact rules and standards, but there is someone from outside who sets them, most often with international companies, whose management is in different countries. Organization as a family has formally set rules but also new ones set by the community of employees; managers make their decisions with the help of the colleagues and use their own intuition. Referring to the employee as a flower when it comes to their motivation or further education and taking care of them as a flower, their performance and results get better. The employee is also compared to a child that needs to be taken care of and it should show socialization within the organization and employee as an animal. Here, we can see the mostly used common characteristics of some animals that refer to age, experience, or persistence. In all these cases, it is very difficult to transfer them from one language to another because of their specific meanings.

This publication aims to students of andragogy and familiar disciplines. It might be useful for beginning managers to see examples from the interview research and to understand that decision-making is a complex process dealing with two contradictory levels. You can find many psychological elements throughout the book. Not only the aforementioned somatic markers, but also the book portrays the connection between our emotions, intuition, and cognitive functions.

To sum it up, this book explains the decision-making process in a professional way using a lot of supportive literature and research results. It might be a bit difficult to understand certain parts of the book for a reader who is unfamiliar with the topic like this. At the same time, the references might help in understanding. The major thing that emerges from this book is that not only gained experience and knowledge, but also emotions and intuition are integral to the decision-making process of managers.

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Váradi, J., & Szűcs, T. (Eds.). (2019). The past, present and future of music pedagogy – Handbook of the presentations of the conference for the 50th anniversary of higher educational music teacher training. Debrecen, DUPress

***Reviewed by Csaba Péter*[1]**

Research in the field of music pedagogy has a significant role in the scientific world. Similarly to other sciences, the examination of this media from various aspects is important. Fortunately, Hungarian researchers have the possibility to make the results of their research available for the audience. A perfect example is the handbook, published in 2017, titled "*Multicoloured music pedagogy. Studies on the role, methods and social effects of music pedagogy [Sokszínű Zenepedagógia – Tanulmányok a zeneoktatás szerepéről, módszereiről és társadalmi hatásairól]"* edited by Judit Váradi, PhD and Tímea Szűcs, PhD. In the "*Education in the 21st century [Oktatás a 21. században]"* volume series, this was the first time when a book presenting studies related to music pedagogy had been published. The editor of this series is Gabriella Pusztai, DSc. In 2019, the volume edited by Judit Váradi and Tímea Szűcs was entitled "*The Past, Present and Future of Music Pedagogy – Handbook of the Presentations of the Conference for the 50th Anniversary of Higher Educational Music Teacher Training [A Zenepedagógia múltja, jelene és jövője – Tanulmánykötet a felsőfokú zenetanárképzés 50 éves évfordulója alkalmából rendezett konferencia előadásaiból]*" and it was published as the continuation of the previous handbook.

The volume is divided into 4 chapters and includes 22 studies. The first chapter deals with the methodological characteristics of music education. The second chapter elaborates on

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the historical background of music pedagogy. The third discusses the perspectives of music education. The fourth contains studies written in English. It is titled "*Dimensions of music pedagogy*."

The authors of the first chapter are Andrea Asztalos, László Gönczy, Zsuzsanna Hegedűsné Tóth, Judit Kompár-Rőmer, Ildikó Lehotka, Ildikó Reikort, and Tamás Szalai.

The authors of the second chapter are Gábor Dragony, Mihály Duffek, Gergely Kovács, Tímea Szűcs, and Gábor Tokodi.

The authors of the third chapter are Szabolcs Bandi, Sándor Imre Nagy, and Bence Vas who are authors of a cowritten paper; Alice Hausmann Kóródy, Emerencia Héjja Bella, Tünde Kornélia Pintér, and Csilla Imola Székely who are single authors of their own article; as well as Éva Vas and Gabriella Deszpot as coauthors of another paper.

The authors of the fourth chapter are Mária Glocková, Ákos Gocsál, Szabolcs Bandi, Ewa Parkita, Anna Parkita, and Maria Strenacikova.

The first study of the first chapter was written by Andrea Asztalos. It is entitled "*Voice-Production Errors in Elementary Age [Énekhangképzési problémák az általános iskolai korosztályban]*." The author presents the developmental process of children's singing ability using international academic literature and then she describes her own research. Using different methods during the investigation, she made a distinction among four types of voice-production errors in the case of children; then, she developed a solution for all and tested them as well. The results confirmed that using these methods, these singing problems can be improved within 2 years.

The second study is related to László Gönczy. Its title is "*Music History Courses as the Indicators of the Contextual and Methodological Problems of the School of the Arts in Higher Education [Zenetörténet-kurzusok mint a művészeti felsőoktatás rendszerszintű tartalmi és módszertani problémáinak indikátorai]*." As it is indicated in the title, the author targets the higher education, specifically music history courses in his research. He makes a theoretical approach toward the methodological and contextual issues of this subject. From the perspective of national higher education in musical arts, effectiveness is necessary to be improved in the case of these courses. The method selected by the author is to gain full-scale knowledge about the prospective freshmen. The examination was a pilot investigation, which was provided by the BA freshmen and by the freshmen of the undivided teacher-training program of two universities, of the University of Szeged, Faculty of Music and of the University of Pécs, Faculty of Music and Visual Arts. During the investigation, it was revealed that the knowledge gained about the participants of the education and the adjustment of the content to them are significant for the successful and fruitful education.

The third study is the work of Zsuzsanna Hegedűsné Tóth. Its title is *"An Innovative Music Pedagogical Method for 3-9 year-old Children [Egy innovatív zenepedagógiai módszer 3-9 évesek között]*." The author presents the method of music pedagogy, which was developed by herself and which has been operating since 2010. The age group is identifiable on the basis of the title. We can mention mainly nursery-age children, preschoolers, and children from the junior section. The theoretical background of the whole method is demonstrated from the viewpoint of both general didactics and music pedagogy.

The fourth study was written by Judit Kompár-Rőmer. It is entitled as "*About the Methods of Hungarian String Folk Music Education [A vonós magyar népzene oktatásának módszereiről]*." In this brief essay, the author summarizes the essence of the difficulties of folk violin plays. She emphasizes the music teaching methods of village communities and the lessons learnt from them. This issue is examined by the introduction and description of the "Transylvanian School" and the "School of Highland."

The fifth study is related to Ildikó Lehotka. It is entitled as "*Márta Albertné Balogh: My Fourth Songbook – The Listening Material of Fourth-Graders' Music School Book in Primary School [Albertné Balogh Márta: Negyedik daloskönyvem – A negyedik osztályos általános iskolai ének-zene tankönyv zenehallgatási anyaga]*." The essay deals with the listening material of the previously mentioned school book. It provides a detailed picture of the school book, and it is implicated in an investigation from various aspects whether the listening material of the school book adequately covers the excerpts of the book. We also receive a brief theoretical summary about the importance of listening to music and by showing us a half-structured interview, about both the teachers' and students' opinion on music listening during music classes.

The author of the sixth study is Ildikó Reikort. Its title is "*Music Pedagogy with Traditional and Modern Musical Instruments – The ReikArt Multidisciplinary Approach [Zenepedagógia tradicionális és modern zenei eszközökkel – A ReikArt összművészeti megközelítés]*." In this paper, we can read about the methods for the novel application of multidisciplinary fields. These methods help to process the experience provided by music. This summary of the author can be particularly fascinating for those readers who are interested in the pedagogical methods of Klára Kokas.

The last study of the first chapter entitled "*The Overview of Research Tools Used to Measure the Ability to Sing in Music Pedagogy [Az éneklési képességek mérésére szolgáló kutatási eszközök áttekintése a zenepedagógiában]*" was written by Tamás Szalai. We can read about the difficulties in implementing the Kodály concept and about the situation of music education. Subsequently, we can learn the concept of skill and capability in a clearly defined chapter. In the main part of the paper, we can learn the methods used to measure

the ability to sing. For instance, musical ability and musical skill test, performance test, and attitude test. Thereafter comes the introduction of acoustic-measuring instruments; these tests are carried out with computers. The third category is the one that was developed specifically for a certain research by the researchers. At the end of the summary, proposals are mentioned to make future research more precise and efficient.

The author of the first study of the second chapter is Gábor Dragony. The title of the article is "*About the Past and Present of Folk Music Education Concerning Artistic Education [A népzeneoktatás múltjáról és jelenéről a művészeti nevelés tükrében]*." The author gives a summarized preview of the history of national folk music education, from the dance movements, which were casual Hungarian folk dance events, to the institutionalized, ongoing folk music education. The research examines a field of which the comprehensive, national investigation has not been carried out so far, so it could be interesting for people dealing with folk music.

The title of the second study is entitled as "*50 years of Music Teacher Training – From a Debrecen Perspective [A zenetanárképzés fél évszázada – debreceni szemmel]*." Its author is Mihály Duffek. We have an insight into how the national music teacher training has been developing since 1996 in Hungarian higher education institutions. Subsequently, we can learn the academic teaching staff of the University of Debrecen, Faculty of Music and the changes over time and the well-known, cultural engagement of the Faculty.

The title of the third study in the second chapter is "*Religious Music and Community-Creation: The Role of Choir Directors in the History of Debrecen Calvinist College Choir Kántus [Egyházzene és közösség-teremtés: a kórusvezetők szerepe a Debreceni Református Kollégium Kántusának történetében]*," the author of which is Gergely Kovács. The study presents a big-time interval, *ca.* 140 years, and puts the major emphasis on the work of three choir directors, who were directing the choir, mentioned in the title, for an outstandingly long time. Thus, we receive the detailed picture of the development of the choir and of how it achieved the highest professional level.

The author of the fourth study in the second chapter is Tímea Szűcs. The title of the work is "*Music Education from Parochial School to Primary School of the Arts [Zeneoktatás az egyházi iskoláktól az alapfokú művészeti iskolákig]*." It is a historical work summarizing briefly the history of national music education. The first chapter immediately introduces a bigger period, more precisely the period between the 9th and the 19th century. We gain a picture of what characterized music education in every century. Later on, the period from the 19th century till present days is presented. This is divided into two. In the first part, the development of music is depicted. It is followed by the development of instrumental music. We gain a very detailed description of music education by summarizing its main points.

The author of the fifth study is Gábor Tokodi. The title is "*Mandora Manuscripts of the 18th Century, New Repertoire in the Literature of Classical [A 18. századi mandorakéziratok, új repertoár a klasszikus gitár irodalmában]*." In this summary, we can learn not only the special instrument, mandora, but we receive an overview about the history of the 19th century music played on the guitar, when classical guitar, which is used nowadays, was non-existent. At the end of the paper, the author provides the instrument, mandora as an example in a Hungarian relation.

The authors of the first study in the third chapter entitled "*The Musician Personality Concerning Pedagogical and Mental Hygiene Aspects [A zenész személyiség pedagógiai és mentálhigiénés aspektusai]*" are Szabolcs Bandi, Sándor Imre Nagy, and Bence Vas. The authors discuss the relations of musicians' personality psychology and the common field of musicology and personality psychology in a brief overview. Spreading out from the relation between music and personality, the field of personality is being investigated from various aspects.

The title of the second article *is "Multidisciplinary Opportunities and Tasks of Music Pedagogy [A zenepedagógia multidiszciplináris lehetőségei és feladatai]*." The author is Alice Hausmann Kóródy. In this paper, through various fields, like native language or traditions, we can learn what multidisciplinarity means, and how music education can help to form our value systems and literacy. The author mentions the biggest obstacle, which is no other than the minimal number of music lessons per week with respect to public education.

The author of the third study in this chapter is Bella Emerencia Héjja. It is entitled as "*The Introduction of the Family Background Concerning the Family Structure, the Number of Siblings, the Parents' Educational Level and the Communication between Parents and Children among Musical Secondary Vocational School Students [Zeneművészeti szakgimnaziták családi hátterének bemutatása a családszerkezet, testvérek száma, a szülők iskolai végzettsége és a szülők gyermekükkel való kommunikációja mentén]*." The study presents a questionnaire survey, conducted in a high school specialized in music and its results. In the first chapter, the family structure is examined. Here, we can get to know what type of families exists nowadays. Within the chapter, we gain a picture of how the number of children has changed over the past decades. We can read conclusions concerning how the parents' highest level of qualification influences child-bearing. In the next chapter, she examines the communication between the parents and their teenage child. The author presents her own empirical research in this paper. The investigation describes in details and from various aspects of the fields, which are mentioned in the title of the summary.

The title of the fourth study is "*The Assessment of Musical Education Regarding Elementary School Students [A zenei nevelés megítélése általános iskolás tanulók körében]*." The author

is Tünde Kornélia Pintér. As it turns out from the title, the investigation was conducted with students and its aim was to unravel their attitude toward musical education. We receive an overall view of the previously mentioned topic by examining four fields, such as attitude toward playing a musical instrument, listening to music, and the preferences of listening to music, attitudes, and satisfaction. The results are very telling and thought-provoking.

The author of the fifth study is Csilla Imola Székely. The paper is entitled as "*Freestyle Improvisational Dance to Classical Music in the Music Pedagogy of Klára Kokas [Szabad improvizációs tánc komolyzenére Kokas Klára zenepedagógiájában]*." The essay is completely built upon the music pedagogical methods of Klára Kokas and it gives an insight into a method of music perception and reception. Through the Kokas-life work, the author demonstrates how music and dance improvization helps children to express themselves.

The authors of the last study in the third chapter are Éva Vass and Gabriella Deszpot. The title of their paper is "*Full Attention and Flow-Experience Regarding Children in Kokas-Pedagogy [A teljes figyelem és a flow-élmény a gyermekeknél a Kokas-pedagógiában]*." Similarly to the previous work, the pedagogy of Klára Kokas is presented for the reader, but it is examined from a different perspective. At present, the focus is put on creative flow-experience. The authors examine free movement inspired by music and the relation of musical knowledge and creativity in the context of Kokas-pedagogy as the main issue of the study. The analytical method developed by the authors is also depicted in details.

Mária Glocková wrote the first paper of the fourth and final chapters. The title is "*Politics and Art*." This paper, similarly to the three other ones of this chapter, was written in English. As it turns out from the title, it discusses the relationship between politics and art. First, we can read about the definition of politics. It raises the question: What is political art? According to her, the arts cannot depend on politics. Arts has to be impartial and independent. Later on, we can read about the musical life of the former Czechoslovak Republic in details. The development of Slovakian folk music and the formation of Slovakian national opera are described comprehensively.

The authors of the second summary are Ákos Gocsál and Szabolcs Bandi. The title of their study is "*An Assessment of Pre-Service Teachers' Entering Beliefs About the Teacher's Role*." Five groups of the University of Pécs, Faculty of Music and Visual Arts took part in the research. In the author's paper, we can read about the results of the investigation made with these groups. The results are remarkably interesting and the different opinions of the student groups were clearly outlined.

The title of the third study is "*Educating Future Music Teachers in Poland – Theoretical Assumptions and Examples of Good Practice*," written by Ewa Parkita and Anna Parkita.

The essay discusses theoretical and empirical observation. It investigates how a university affects a creative music teacher's personality development. The authors present this through the Institute of Music of city Kielce.

In the handbook, the last paper of the last chapter was written by Marai Strenacikova. The title is "*Music School Teacher's Preparation for Educating Children With Special Needs*." This paper is about the education of children with special needs. It describes why it would be necessary to give teachers proper training for the education of these children, and it enlists three factors that interfere with the training of music school teachers for the education of children with special needs.

At the end of the handbook, we can read the English abstract of every essay and we can find the authors' contact information who published in this essay collection.

I would especially recommend this volume to music education teachers. It also can be a useful reading for anyone interested in arts education. We are talking about a very diverse volume, so anyone who is interested in this topic will find his/her most interesting study.

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Meliscin, F. (2017). Gender, justice and equality: Creating capabilities for girls and women's development. London, UK, Palgrave Macmillan

***Reviewed by Sanaa Taler Saleh*[1]**

Dr. Firdevs is one of the PhD lecturer members in the Faculty of Humanities and Social Science in the Department of Psychology in Istanbul, Turkey.

She obtained a Master degree in Human and Social Sciences, Dublin University, Trinity College of Ireland, and a PhD from Nottingham University, UK, in Social Sciences and Women's Studies, her profession involves women's studies social justice, gender, feminism, human development, and sociology of education, feminist philosophy, education, and equality. She has over 10 publications in international journals and 3 printed books.

The book consists of eight chapters. This book elaborates on the capabilities approach, developed by Amartyase (1999) and Nussbaum (2000), engaging in women's live in Turkey.

Women in Turkey are located at crossroads embracing modernity and living under traditional and cultural norms. The book explores women's positioning, survival, resistance, freedom, well-being, and agency through the clash of multifaceted sociological phenomena, such as religion, secularism, modernism, tradition, ethnicity, multilingualism, and paradoxes of culture and generations, both in the public and private spheres.

The book deals mainly with the suffering of the woman in spite of the declarations of humanitarian organizations on human rights in general and the rights of women in particular and their legitimate rights in gender equality, justice, and equality in education.

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The introductory chapter of the book provides a contextual and methodological framework for the book. It begins by focusing on current debates on gender, education, development, and problematizes the way current debates approach gender equality. Then, it introduces the Turkish context concerning issues in gender and education, testing out how the capabilities approach coupled with feminist theory can offer a better understanding of gender and education in Turkey. Finally, it sets the feminist methodology applied in this book to reach women's voices.

The book deals with a study across different generations and disciplines on gender and justice, which reveals the long-standing injustices and undemocratic attitudes that women face, by voicing and studying the lives of ordinary women teachers.

How are the capabilities and agency of three generations of the interviewed women teachers expanded and restricted throw out their lives from the republican era to contemporary in the Turkish context? These questions are posed by the author in the book and she tried to answer them through the chapters of the book.

How could these women make their way up to become teachers, in contrast to the majority of Turkish women? To what extent has education in Turkey been liberating for them? To what extent were these women capable of being agents of social change and justice?

These questions are intended to furnish and understand the professional, social, personal lives of women, and to examine the way how gender has interfered with women's use of agency and enactment of freedoms.

The book presented a list of the author such as Nussbaum's conception of capabilities, capabilities based on agency, and a list of capabilities proposed by the author. Then, the book presented the history of gender politics and the educational context of Turkey.

In the book, the author was exposed to historical events in different periods, political parties of the right and left sides as well as political conflicts resulting from these circumstances in Turkey, despite the slow progressive positive change.

In this book, the writer raised the history of women's and educational movement during the study of female teachers in three different generations: the first generation covers the republican women (Kamalist), the second generation collects the Amazon women (Nationalist), whereas the third generation collects the postmodern women (Conservation).

The book has emphasized the inequalities existing in the education regarding both males and females for cultural reasons, the traditions of the society, and the inequality in

education, including the girls' access to education, the problems in the curriculum, and the education system as well as the teachers' underrepresentation in managerial posts and the gendered way of teaching. The author conducted semi-structured life history interviews considering the comprehensive and detailed nature of life history and the involvement of a small number of participants. In life history research, the author had 15 (3 in the first group, 6 in the second group, and 6 in the third group participants).

The women's educational experiences showed that education opened up opportunities that they were culturally deprived of their private spheres. It contributed to their capacity to participate in democratic life, develop authentic expressive voices, and construct a life they valued for living, widening their opportunities to make life choices and giving them the necessary resources to secure their future well-being. It also became apparent how the sociopolitical context was also determinant in the educational experiences of all generations.

The context interferes with the educational system and its practices determine which capabilities are more likely to be developed. For instance, we could see the state ideology of building a nation offering a gendered education based on strong, Kamalist and Nationalist, so that they could be active participants of political revolution of the Republican era and act as representatives of the new modern Turkish women; such an education enabled the necessary conditions for women to achieve all their valued capabilities and to reach lives they value. The political context of Amazon women triggered the capability expansion of their political ideas and women adopted activism as an essential part of their lives.

In addition, schools were also gendered sites of power and created inequalities concerning learning and teaching: that's the kind of work women can do, the subjects they could study. We could see how this inequality causes women to perform reserved, shy, obedient girl identities.

This suggestion of gender inequality at schools is much more associated with informal spaces of schools such as families. In addition, the labor market and the institutions shape gender roles such as who does the care work and who becomes more prominent in discussion making.

In this sense, schools are the back garden for social realities and to extend the reflects of gendered practices and cultural codes. Nonetheless, schools and education can also transform some of the gender inequalities of the private sphere, but they have limited ability to develop their skills and potential.

This is because education, particularly in Turkey, usually reflects the cultural hegemony of the ruling class and state and does not ensure equality. Whatever their agenda is

(imposing conservative or Nationalist education), developing a balanced perspective and education toward gender equality is never priority. Therefore, prevailing masculine norms and patterns remain deeply rooted in education and offer women a marginal space to truly achieve whom they want to be. Generally, the women's education opened up spaces and freedoms, which would otherwise not have been possible.

One of these freedoms was their ability to take up work and to take their place as professional women in the public sphere. This is a significant aspect of this book in terms of outlining how these women (empowered by education) are engaged in education to work for gender.

This book presents an original research project situated on feminism and education literature, drawing the links between women's lives, education, and gender literature. Capabilities in this research allow us to understand what kinds of freedoms are available to women, why and how they reason to value these freedoms in creating a good life, well-being and agency, and continuities and changes in the freedom of women teachers in Turkey have reason to value.

These women's lives illustrate how gender justice is an issue of patriarchal mindset and institutions, rather than the lack of legislation and legal provisions. Granting an equal right is regarded as an achievement and measure of gender equality. To leave the exciting gender ideology and patriarchal nature, institutions, therefore in this research, the women continued to be discriminated against work based on their gender and faced inequality opportunities with regard to their access managerial positions. Implications of how schools disempowered students or girls were evident in women's professional life.

In overall understanding, especially concerning gender justice, education, and human development, the book deals with the history of social movements including feminist political theories in the United States and the United Kingdom in addition to several literature. The author has focused on three different approaches to think about gender justice, which are recognition and redistribution, democratic participation, representation, and a social contract to establish a universally applicable but contextually gender-sensitive gender justice approach based on diversity, which could be applied in education.

As a result of the research conducted by the author, the context interferes with the educational system and its practices determine which capabilities are more likely to be developed. For instance, we could see that the state ideology of building a nation offered a gendered education based on strong, Kamalist and Nationalist, so that they could be active participants of political revolution of the republican era and act as representatives of new modern Turkish women.

The political context of Amazon women triggered the capability expansion of their political ideas and women adopted activism as an essential part of their lives.

In the Nationalist perspective, generally, the women's education opened up spaces and freedoms, which would otherwise not have been possible. These women's lives illustrate how gender justice is an issue of patriarchal mindset and institutions, rather than lack of legislation and legal provisions. Granting equal rights is regarded as an achievement and measure of gender equality, leaving the exciting gender ideology and patriarchal nature institutions in touch.

The book is highly recommended as it is an excellent resource for researchers and scholars looking for issues related to oriental women and gender. In terms of accuracy and objectivity, the book is very well prepared in sequence of the narrative of the historical events that have passed on the Turkish people and the challenges faced by the intervention of politics in all aspects of life.

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