SOCIAL AND CULTURAL IMPACTS OF BECOMING AN INNOVATIVE TEACHER

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Abstract: Due to the socio-economic challenges of the 21st century, a significant role is assigned to innovative teachers. Our research aims to explore the cultural and social factors that support teachers to become innovative. Between 2010 and 2015, teachers in Hungary had the opportunity to formally register their pedagogical innovations. In our interview study-based, we examined the personal and professional life paths of 12 teachers who had formally registered their innovation and compared them with the life paths of 12 teachers who had taught in the same school but had not registered their innovation. The sample was selected from schools in two disadvantaged regions, in equal proportions by county and by type of school. The semi-structured teacher interview transcripts were analysed using Atlas Ti.7 software. The following dimensions of human and social capital accumulation were analysed: family environment, local social network, stages of educational career, and work contact systems. Of the four domains, family environment and local society did not have a decisive influence on the teacher becoming an innovating educator, but extracurricular commitments in higher education, an open and diverse professional network of contacts, and a role definition extended by professional self-actualisation were predictive of innovation.

Keywords: innovative teacher, social impacts, cultural impacts, innovation of education

1. Introduction

Many areas, including education, have to respond to the social and economic problems after the turn of the millennium. In the process of globalization, it can be observed that international innovation systems are evolving in terms of the knowledge economy (Moate, 2011, Archibugi, Filippetti, 2015; Fazekas, Halász and Horváth., 2018). However, adaptation is a more significant challenge for countries whose industry and education strategies are less innovative and the co-operation capacity of actors in these areas is weaker (Inzelt, Csonka, 2018). The challenges of the 21st century - sustainability, globalization, digitization - have opened up opportunities for new areas of innovation. In order to educate the knowledge-based economy of the 21st century and for a competitive society, it is a priority for all actors in education to develop competencies that will enable modern, open-minded, cooperative workers in all sectors of the labor market to become drivers of development. All this requires a renewal of the educational content and structure.

2. Theoretical background

Many countries of the world are facing this challenge, however, improving Hungary's international economic competitiveness cannot be achieved without significant changes in education (Nemerzitski, 2013, Inzelt, Csonka, 2018). As a result, innovation policies are becoming increasingly important in national development strategies, while it is clear that individual sectors are also generating sectoral innovations. An important area of the educational research in the international the literature is the study of the development of

innovation systems. Challenges at the level of education systems, such as the diversity of student environments and the social environment of schools, the deteriorating position of the school's knowledge monopoly, and the strengthening of accountability to institutions have strengthened education policy efforts (Halász, 2013). Education systems that follow the development of information and communication technology and the innovative teachers who operate it professionally are becoming the main drivers of education (Krejsler, 2007). One of the fundamental aims of research on educational innovation is to explore the specificities of innovation in the sector, to identify areas where innovation is taking place in education; and analyze the factors that lead to a successful innovation process in education (Fehérvári, Kopp and Lénárd, 2018). The OECD's 2010 Innovation Strategy (OECD, 2010a; 2010b) prioritises the innovation responsibility of the education sector and identifies the creation of a stand-alone strategy to support innovation. The OECD reports of subsequent years (OECD, 2014; 2016) further reinforce the need for educational innovation and suggest that all of these may contribute to improving learning outcomes and the quality of education. In international and domestic educational policy research, special attention is paid to teacher`s work and its correlation with effectiveness (TALIS, 2008, Lannert, 2009). In order for education to be effective, an analysis of a number of systemic factors becomes necessary. The shift from the traditional classroom environment to the role of the classical teacher has resulted in a paradigm shift in the educational environment. Innovative teacher behavior and high-quality teacher collaboration in an innovative environment are prerequisites for student success (Charteris, 2021). The question is: who are the innovative teachers, what are the life paths that can influence the development of innovative behavior throughout the career.

In the epidemic caused by COVID, there is a particular emphasis on the ability of educators to innovate their ability to innovate and mobilize their energies in a changed educational environment. Research generally examines the personality traits of innovative teachers and their networks of relationships, but does not examine the relationships between why they become innovative. Our research aims to explore the cultural and social factors that help teachers become innovative.

3. Methodology

In the qualitative phase of our study, we conducted structured interviews and life-course interviews with educators registering and not registering educational innovations (24 people). We strive to get a detailed picture of the individual life path dimensions of enrolled and non-enrolled educators. In our qualitative research we conducted structured interviews in which we established the main direction of the conversation, while following the topic groups recalled by the interviewees (Babbie, 2001). With the help of "deep drilling", we want to set up different typologies among educators who submit or innovate educational innovations, but do not accredit or innovate it. In our research, we conducted guided conversations to see if, while telling life stories, one can identify row events that marked a turning point in the lives of the interviewees? However, the problem of self-identity raises significant questions about the application of this method. Because individuals have to rewrite their pasts, this calls into question their self-identity and their attitudes towards their life stories. This re-created story is closely related to the future (Ricoeur, 1999). Life history narratives provide an opportunity for the interviewees to look back on the present to articulate the events of their own lives, during which they reconstruct themselves: they experience their own historicity in the defining events of their lives (Kovács, 2006). Two distinct principles of empirical research are openness and communication. Communication situations provide access to reporting data, such as observation and interview techniques (Feischmidt, 2006). In the present research, we

use the latter method. Texts recorded during the structured interviews were subjected to qualitative text analysis using the Atlas Ti.7 program. With the method of content analysis, it became possible to objectively analyse recurring motives (Szabolcs, 1993). Some sections of the text corpora were coded, however, no interventions were performed on the texts themselves. A mixed (inductive and deductive) method was used during the coding. In accordance with the peculiarities of the deductive theory-driven method, we developed the aspects that gave the code system of the later code network (deductive theory-driven coding) on the basis of the examined dimensions before the research. Subsequently, we also used an inductive method along the mappings of the individual constructs of life stories, we decomposed the text segments belonging to the main codes, and created subcodes (data-driven analysis). According to the variable oriented / topic-centric analysis, classification was performed along the research dimensions. To increase the reliability of the process, we performed double coding on the main codes (intracoding). We performed the operation at different times according to the same logical system (Sántha, 2009).

In the qualitative phase of our research, we used structured sampling. In the four counties of the examined Northern Great Plain and Northern Hungary region (Borsod-Abaúj-Zemplén, Heves, Szabolcs-Szatmár-Bereg and Hajdú-Bihar counties) we asked for a total of 12 teachers from secondary schools (grammar school, professional institutions) in equal proportions, and recorded structured interviews with educators who enriched the professionalism of their institutions with their accredited educational innovations between 2010 and 2015. Their innovative practices can be found in the Educatio Service Basket Database[1]. The educational innovations to be uploaded (good practice, proven good practice, idea) took part in an expert evaluation procedure, and when the criteria were met, they became available in the School Bag's good practice collection. The "good practice" examined in our research is a method, activity, pedagogical or organizational development practice or a combination of these applied in various fields of public education, appearing at the individual or institutional level, innovative in its approach and practice and/or filling gaps, which can be experienced in the operation of the institution, and which fulfills its tasks positively influences its procedure. It is in line with the sectoral and institutional regulatory documents. It is legal, its application is documented, its results and effects are measured, and its operation is sustainable. The educational innovations can be linked to pedagogical, methodological, educational organization and organizational development fields of application, the short-term strategy of which was intended to help the spread of "bottom-up" innovations developed by teachers that respond to local challenges, and the further development of existing practices. Furthermore, using the snowball method, we sought out educators (12 people) who teach in innovative types of institutions, but did not submit educational innovations for accreditation. Thus, structured interviews were conducted with a total of 24 people. During the analysis of the interviews, we compared the teachers of the Northern Great Plain and Northern Hungary regions according to the type of school they work in (grammar school and vocational institutions) and whether or not they registered good practices.

Data from individual life stories were collected based on individual life dimensions, individual life turnarounds, and the interviewee's characteristic adaptation strategies (Bögre,

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[1] The "Service Cart" is the electronic information system of Educatio Kft. The database collected good practices between 2010 and 2015 based on an expert procedure in the framework of the competition entitled "Competence-based education, equal access - in innovative institutions". The database is available on the kosar.educatio.hu interface.

2003). Individual events in individual life were examined along the cultural and social dimensions. In the case of the cultural dimension, we tried to monitor how the expectation system of the people among whom the interviewee grew up can be characterized. We monitored what kind of career model the family and school environment offered to the individual, and how he was able to take advantage of all this, how he differed from this pattern. Our research question was in the context of the cultural and social context, what kind of structures the family environment, the local society, the school and workplace relationships form on individual life paths. Examining the effects of the family environment, we focused on the social situation of the interviewee, the effects of the memories preserved in connection with the parents on the life path, the system of family expectations and identification with it. The effects of the relationship system of the local society were also monitored. The mapping of school and workplace relationship systems also had important information, focusing on how the interviewee presents his schools, teachers and key players. We observed how the individual portrays himself in specific locations, how he presents the actors in his workplace, how he places himself in the work environment.

4. Results

4.1. Cultural dimension

In the sociological approach of the family as a social institution, it plays a role in passing on knowledge, experience, pattern, value and norm systems between generations for the individual to prosper (Boreczky, 2015). Our research question was what kind of career model culture, milieu can offer to the individual. The pedagogical career can be found among the teachers of the grammar school of the Northern Great Plain region both in the school type as a model to be followed in the narrower and wider family circle. In the reconstruction of life stories, the dominant role of the positive maternal pattern and the conscious cultural value system of the family influence the choice of the teaching career as a determining factor: "I would mention my mother, who is a Hungarian-library teacher. A very extraordinary personality. My brother and I grew up in a very conscious love and environment. Ever since we studied music, theatre has been an everyday part of our lives, growing up among books to cultivate a garden. We travelled regularly as much as I could, I visited Hungary when I was 10, just because Mom took me. It was definitely very decisive, and also that I wanted to be a teacher soon." (Northern Great Plain region, grammar school, teacher not registering educational innovation) Based on the theory of reproduction related to the family's value and norm system, we also identified a tangible value-taking habitus, which shows a correlation between his everyday experiences and his future career (Pusztai, 2015). The pedagogical career can also be found in the family among the teachers teaching in the institutions of the Northern Great Plain region: "My grandmother was a teacher, and in the summer, when we spent two weeks together, learning was always very important. As she put it, and as he tried to control me, it remained very much. " (Northern Great Plain region, institution providing a profession, teacher not registering innovation) Furthermore, the strict system of family norms and values determines the life course of the interviewees as a determining factor, promoting their well-being in life: "My family is very busy, so persistent work and development through tasks is an important value for me. I consider this to be the most important value I brought from my childhood, that you have to work despite all the difficulties, and sooner or later you will have the result, without which you will not go." (Northern Great Plain region, institution providing a profession, teacher registering innovation) The intergenerational effect of the system of values and norms mediated by grandparents can be well identified in the examined groups: "My grandfather returned home from World War II, captivity, and they started their

lives again (…), which I consider to be a very important value." (Northern Great Plain region, institution providing a profession, teacher registering innovation) Intergenerational value factors can be interpreted as elements of well-being in life. However, not only a positive but also a negative system of experiences can be connected to the family in the known life paths. All of this becomes a determining factor in an individual's life path, which can be identified as a motivating effect of breaking out of this negative life situation in career development: "(…) I keep a lot of sore points. It wasn't pleasant. Our family struggled with the most varied addictions. (…) I was also heated by the fact that I somehow wanted to break out of the atmosphere that was at home. As I saw the negative examples, it was absolutely motivating for me. I wanted to try myself in things, precisely because they weren't boring, they weren't expected of me. I wanted to go to acting, but they were afraid I wouldn't study then, but I felt I had to do something, and I really wanted to." (Northern Great Plain region, institution providing a profession, teacher not registering innovation) The lack of positive reinforcements from the family plays a decisive role in the development of successful success in life: "I had to learn very soon to achieve things alone. It was very weird when someone praised me, I really had to learn that. (…) It took a long time for me to accept help. " (Northern Great Plain region, institution providing a profession, teacher not registering innovation). In the case of both groups of teachers teaching in the Northern Hungary region grammar school school, teachers following the career model and first generation intellectuals were also identified, for whom breaking out of the childhood: "I'm really the first intellectual in the family, even my brother graduated from college, but there was no pattern for that within the family, but I wanted to avoid it and not do farm work." (Northern Hungary region, grammar school, teacher registering innovation) In the case of family-mediated values, honour, perseverance, loyalty, and tolerance could be identified as important values to follow in the groups studied. In the case of institutions providing the profession, you can find both following the career model of a family teacher and the resilient life path. The strict system of norms found in a disadvantaged family environment can be identified as a determining factor in the interviewee's life path: "My parents were very simple people (…). Unfortunately, my dad could not continue his studies due to financial reasons. (…). The educational influences that came from home were very important to me, such as the love of work. He has always done what he did with love, he found the good in all evil that he could be happy about, and he tried to work precisely." (Northern Great Plain region, grammar school, teacher not registering educational innovation). The interviews revealed that they respect the example of their parents and this is related to their coping strategy. Hard physical work, standing in everyday life situations is of decisive importance in the development of the track, increasing endurance, outstanding compliance in each life situation: "As early as the age of four, I was able to lay the rope at the harvest. Ever since I was able to hold a hoe, I've been there with my parents and worked." (Northern Hungary region, institution providing a profession, teacher registering innovation)

In reconstructing the life histories, it is therefore clearly visible that the positive or negative value and expectation system mediated by the family members during the primary socialization is decisive in the life paths of the teachers associated with both types of schools in both regions. It influenced the career choice in a positive direction and encouraged the interviewees to settle down in their workplaces, however, it showed no correlation with whether someone submitted an educational innovation or not. So, on the one hand, the individual can identify with the system of values and norm system mediated by the family, or question it, but cannot invalidate their influence. Getting to know the resilient life path gave us the opportunity to confirm that, despite social disadvantages, it is possible to continue

successful studies through the transmission of the strict expectation system in the family, as well as the larger, stressful life events experienced during the life journey.

4.2. Social dimension

Local society

Among the social fields of social learning, in addition to the family, the community of the settlement itself, the area where the child grows up, has a significant force (Kozma, 1991). The community experience experienced in childhood is decisive in life paths, which forces the individual to create, experience the community experience experienced in childhood later on, and use it as a contact capital to create educational innovations. The community-forming power of the farm world, villages and towns is decisive in the life course of the interviewees. The defining system of relationships associated with the nature I experienced on the homestead forms a lifelong imprint on life paths. Going from the farm to the village can create another defining community structure, integration into which is not an easy process, but at the same time leads to the development of coping strategies, which later helps to build relationship capital in the life of the registrant. In connection with the theory of social capital, we can talk about strong and weak bonds by examining the strength of relationships (Granovetter, 1994). In the case of interviewees from small settlements, the role of the community is decisive, where we identified a strong bond between close and multifunctional family and family-related actors, which later leads to strong community relationship capital for educators registering innovations: "We were in the early 1970s. The community of a village was quite different then. There was a need for community coexistence in people. We regularly attended ceremonies from the village and really everyone knew everyone." (Northern Great Plain region, institution providing a profession, teacher registering innovation) At the same time, the local communities of the urban environment also play a significant role in experiencing community experiences: "We played a lot, played football together, and that's when one also learns to move around the team. We also learned tolerance, how long one can stretch the string, who has how much patience; it has actually been with me all my life since I was a child." (Northern Hungary, grammar school, teacher not registering innovation) In connection with the community-forming role of settlements, religion is decisive in certain life paths, and in addition to its sacral role, it is important to emphasize that the aroused a desire for the interviewee (Pusztai, 2007): "There was a fantastic Catholic priest in T (settlement name) who noticed that I was a bit of a private child and took me with him to the parish. That's when I first saw such a noble rug, armchair and bookshelf. He noticed me and said, "Take it and look at it!" There were books in Gothic letters there and he said this can also be learned. And he helped me a lot." (Northern Hungary, professional institution, teacher registering innovation) Although the interviewed teachers experienced a distance from religion at certain stages of their lives, they still testify to the decisive role of childhood-related community experience, which accompanied the interviewee throughout his life: "I am eight years old. Every morning I went to church. During my high school and college years, the church was completely left out of my life. After no. Sometimes I need something to touch from the inside." (Northern Hungary, grammar school, teacher submitting innovation)

School relationship patterns

The school institutional system that appears in the lives of the interviewees plays a decisive role in the development of the life path. Among social relationships, micro-level relationships are dominant, in which all members of the network know each other, and mutual trust encourages members to perform more (Coleman, 1988). It is important to highlight the exemplary impact of clousure relationships related to the school system, which plays a

decisive role in primary and secondary school, career choices in the familiar life paths: "When a classmate of mine failed and I tutored him all summer, I had a pleasant feeling of how good it is when I can help others." (Northern Great Plain region, institution providing a profession, teacher not submitting innovation) The community-building role of the formal and informal relationship system related to the school world emerges among the teachers of the Northern Great Plain region, which leads to building mutual trust and knowledge sharing in later workplaces. It is also important to highlight the relationships behind the formalized world of the school, which play a role in building strong bonds between community members (Coleman, 1988). In the case of the community-creating effect, the role of the community life of the dormitories in creating a close network of individuals appeared in several cases: "We were always together in the dormitory that was our life." (Northern Great Plain region, grammar school, teacher submitting innovations) The informal network of contacts related to higher education, the expanding geographical space around the interviewees leads to the broadening of the intellectual field of vision, which later leads to the creation of educational innovations and knowledge transfer network. The attitude-forming role of formal organizations within the university is also significant, which meant a relationship capital for the interviewees, which later strengthened their innovative behaviour in the pedagogical field. The strong connections between the members of the communities also lead to additional performance in the field of scientific work, which behaviour can be traced in the field of innovative behaviour (Pusztai, 2015): "I was a sophomore when I decided what I was writing my dissertation about, then I joined the academic student body." (Northern Great Plain region, grammar school, teacher presenting innovation) The attitude-changing effect of the university relationship system also has a significant effect on career choice, which will appear as a strong relationship capital in the teacher career later. At the same time, there was an interviewee who experienced the structured world of higher education as a less motivating force. Among the teachers of grammar school teaching in this region, two groups seem to emerge in terms of participation in community life. One group includes passive educators in community life, which inhibits innovation activity: "I was an absolutely withdrawn character. It was not typical of me to stand up now, organize, or do any kind of activity like this. There were small drummer and pioneering sessions at that time, I didn't have major roles, just like guards diary leader, song tree. I was not such an organizing, acting type "(Northern Hungary region, grammar school, teacher submitting innovation) However, this passive community existence can be coupled with quite a bit of diligence, which has a stimulating effect on innovation activity: "Learning was the most important thing for me, I always loved to learn, and I still love to learn. So it has always been important to me to have time to deal with what interests me. I was excellent when I was in high school." (Northern Hungary region, grammar school, teacher presenting innovation) The other group consists of teachers active in community life connected to the school system, for whom experiences in the community became important, not necessarily the effectiveness of study work, which stimulated innovation activity in the future. Among the teachers teaching in grammar schools of this region, who submitted innovations, carried out active community and study work in higher education, expanded and enriched their interests. Among the educators who later did not register innovations, there is a passive interest in the community during the years spent in higher education, they did not use the contact systems offered by a college or university. "My private life was on top of that, because that was when I had my first serious relationship with someone, who wasn't in college, and that's why I lived my everyday life without going anywhere to party, but studying, and on the weekends when I went home, we went with it. With the boy back and forth. So I was actually trying to stay out of everything, not to participate in anything that is not mandatory. In terms of language, I would have had the opportunity to form friendship with foreigner" (Northern Hungary region, grammar school,

teacher submitting innovation) There is a wide interest among educators submitting innovations and non-submitters in connection with the school system, but there is a difference in community activity related to knowledge acquisition: "I did not go to parties. (…) As soon as the university was opened, I was already there and I was among the last to come home in the evening." (Northern Hungary region, institution providing a profession, teacher submitting innovation) "I have always been interested in folk tradition, ethnography, farming (…). At the university, my interest widened, I went to dance halls, I met a lot of type of people." (Northern Hungary region, institution providing a profession, teacher not submitting innovation) In the case of both types of teachers, the wider field of interest was accompanied by self-education, deepening within the given field of science, or even obtaining an academic degree: "I read a lot on topics. I was crawling with big book packs. I also got involved in workshops, I was also a vocational college student, I gave lectures there for two or three years. I considered it important to connect with others because I could learn a lot from them, I could give others a new perspective." (Northern Hungary region, institution providing a profession, pedagogue not submitting innovation)

Workplace relationship patterns

When looking at the workplace network of teachers submitting and not submitting educational innovations in both types of schools in the Northern Great Plain region, we observed that they have extensive networks of contacts inside and outside the workplace. They value the creative community between colleagues for continuous learning, self-cultivation and sharing their educational innovations. Changing jobs and becoming academics has also appeared in their circles. In the case of teachers who submit innovations to vocational training institutions, the prominent role of the head of the institution is important, actively shaping the workplace network by channelling them into the application process, thus stimulating teachers' innovation activity. In the case of relational or networking capital, the fertilising effect of open workplace relationships and teamwork, which also affects retention in the workplace, is clearly identified in the life courses that involve registering innovations (Pusztai, 2015). "If a colleague tries something new, we pass it on and bring it to the attention of others. I think it's very inspiring, if I give something, obviously I get something, and it's reciprocal. Yes, I think the power of community is very important to keep someone in a job. " (Northern Great Plain, VET institution, teacher submitting innovation) Broadening the network of workplace contacts outside school gives teachers submitting educational innovations the opportunity in the long term to share their innovations as widely as possible. "A friend of mine coordinates projects in five countries and asked me to give a presentation online to colleagues on my old good practices. " (Northern Great Plain, vocational training institution, teacher submitting innovation) Teachers in professional institutions who have not registered innovations, although they have an extensive network of workplace contacts and are characterised by a high level of involvement in their workplace (leading professional groups, leading work groups, mentor teachers, lead teachers), are more likely to experience job turnover. The confidence they feel in the workplace is very important: "I also have the capacity for energy. Many people think that I do the work of three people. That may be true, but it's not that demanding for me. I'm given a lot of tasks that not everyone does. I've really enjoyed it and I'm really driven to have that confidence." (Northern Plains, vocational institution, teacher not submitting an innovation) In the high schools in the Northern Great Plain region where teachers submitted innovations, we identified support from the management of the institution for going to conferences, study trips abroad, professional development (e.g. as experts and advisors) as a strengthening factor. For those who did not register, we identified negative influences such as lack of managerial support and reinforcement at the start of their careers: "I worked in a school with children with multiple

disadvantages, but I am grateful to fate that I came here because I learned a lot. I had a group made up of only disadvantaged children and then the fifth had trouble learning. Without support and reinforcement, it was not an easy task for me." (Northern Hungary, high school, teacher who did not register innovation) For a less innovative teacher, leadership in professional work meant recognition in the workplace, an expansion of her network of contacts. "It was very good for my self-confidence. (...) I feel like I've become a respected teacher in the community who can bring a programme like this here, because there were people who tried it before and failed." (Northern Hungary, high school, teacher who did not register innovation) In the case of teachers who registered innovation in the institutions providing the profession, we identified a strong attachment to the teaching career and the institution among teachers. The spill-over effect of the human capital investment can be identified as an external effect, whereby the teachers' experience abroad helped to broaden the network of contacts at the workplace and beyond, whereby the individual, in addition to his/her own individual benefits, also produces knowledge useful for society, stimulating innovation activity (Pusztai, 2015). "It was a two-year course. The idea was to become a trainer who would train professionals who would teach ecology at home. (...) I thought at the time that we needed to create a professional base here that would enable us to respond to problems globally." (Northern Hungary, professional institution, teacher submitting innovation). Their professional roles are quite dominant: graduation chair, trainer, workshop leader, talent management specialist. Harmonious and contradictory relationships with school management were also identified, but this did not affect innovation activity. In one case, we identified the phenomenon of burn-out among non-registered teachers as a consequence of the lack of positive feedback and the restricted network of contacts at the workplace, which completely inhibits innovation activity: "The spirit of experimentation is still in me. It's just that a sense of frustration has developed over the last 25 years that I've been, disappointment, burnout or resignation. Over the last 20+ years, these experiments and ambitions have worn me out. I've become a worn-out, jaded, frustrated teacher, unlike the ambitious, ambitious person I was. The enthusiasm and ambition slowly faded." (Northern Hungary, professional institution, teacher who did not submit an innovation).

The local society has a strong binding and strengthening role in the life paths, but at the same time they do not influence the extent to which someone later becomes an innovative teacher. Examining the characteristics of the school relationship system, we can make a distinction between the network of relationships connected to the world of primary and secondary school, and higher education, and its significance during the life journey. The passive behavior experienced in the community life associated with primary and secondary school does not mean that someone will be less proactive in the field of educational innovations later on in the teaching career, but at the same time, in the case of interviewees with rich relationship capital in higher education, innovative behavior can be predicted in the future. The strong or weak bonds of the workplace relationship system have a decisive influence on the development of the career. The lack of support from the institution's management and colleagues during the years of starting a career and returning from 'gyed' and 'gyes' (social care after the birth of a child) is not conducive to innovation activity. At the same time, the human capital accumulated over the years and the active relationship capital inside and outside the school not only provide a platform for innovation activity, but can also more easily cause job turnover. The informal system of relationships and the lack of financial recognition also have a negative effect on innovative behavior, which can also cause career abandonment.

5. Conclusion

In the qualitative phase of our study we conducted structured interviews and life-course interviews with educators registering and not registering educational innovations (24 people). Local society has a strong bond-strengthening role in life paths, yet they do not influence the extent to which someone later became an innovative educator. Examining the characteristics of the school relationship system, we can distinguish between the network of relationships that can be connected to the world of primary and secondary school and higher education, and its significance during the life course. Passive behaviour in a community that can be linked to primary and secondary school does not mean that one will be less proactive in educational innovations later in the teaching career, but in the case of interviewees with rich contact capital in higher education, innovative behaviour can be predicted later. The strong or weak bonds of the workplace relationship system are a determining force for career development. At the same time, the human capital accumulated over the years and the active relationship capital inside and outside the school not only provide a platform for innovation activity, but can also more easily cause fluctuations in the workplace. The lack of an informal network of contacts and financial recognition also has a negative effect on innovative behaviour, which can also lead to abandonment of careers. Our data come from only 24 interviews, so our conclusions are not pseudo-generalisable and require further large-scale quantitative studies.

Bibliography

Archibugi, D., Filippetti, A. (2015): The Handbook of Global Science. *Technology and Innovation*. John Wiley&Sons, Ltd.

Babbie, E. (2001): *A társadalomtudományi kutatás gyakorlata* [The practice of social science research]. Balassi Kiadó, Budapest, 334-339.

Bausinger, H. (1988): Constructions of Life. In Hofer, T., Miedermüller, P. (eds.*): Life History as Cultural construction/Performance*. MTA, Budapest

Boreczky Á. (2015): Családkutatások nevelésszociológiai nézpontból [Family research from the point of view of sociology of education]. In Varga, A. (ed.) *A nevelésszociológia alapjai* [Sociological foundations of education]. Pécsi Tudományegyetem, Pécs, 103-137.

Charteris, J., Wright, N., Suzanne, T., Kohoo, E., Page, A., Anderson, J., Cowie, B. (2021): Patchworks of professional practices: Teacher collaboration in innovative learning environments. *Teachers and Teaching*. https://www.tandfonline.com/doi/full/10.1080/13540602.2021.1983536

Coleman, J. S. (1988): Social Capital in the Creation of the Human Capital. *American Journal of Sociology*, 94, 95-120.

Cresswell, J. (2012): *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (4thed.) Pearson Education, Upper Saddle River, NJ.

Ceglédi T. (2012): Reziliens életutak, avagy a hátrányaik ellenére is sikeresen kibontakozó iskolai karrier [Resilient life paths, or a successful school career despite the disadvantages]. *Szociológiai Szemle*, *22*(2) 85-110.

Fazekas, A., Halász G., Horváth L. (2018): Innovációk és innovációs folyamatok a magyar oktatási rendszerben [Innovations and innovation processes in the Hungarian educational system]. *Educatio*, *27*(2), 247-264.

Fehérvári A. Kopp E. Lénárd S. (2018): Innovative Teachers in Hungarian Schools. *Hungarian Educational Research Journal, 8*(3), 23-42.

Feischmidt, M. (2006): *Qualitative methods in empirical society and cultural research.* http://mmi.elte.hu/szabadbolcseszet/mmi.elte.hu/szabadbolcseszet/indexa2f3.html?option=com_tanelem&id_tanelem=829&tip=0 (2020. 01. 30.)

Granovetter, M. (1994): The social shaping of economic institutions: the problem of embeddedness. In Lengyel, Gy.-Szántó, Z. (szerk.): *Sociology of economic life*. Aula, Budapest, 61-77.

Halász G. (2013): *Az oktatáskutatás globális trendjei* [Global trends in educational research]. http://nevelestudomany.elte.hu/downloads/2013/nevelestudomany_2013_1_64-90.pdf

Inzelt A., Csonka L. (2018): Innováció a tudástársadalom idején. *Educatio*, 27(2), 177-191. (2022. 01. 15.)

Kozma T. (1991). *Bevezetés a nevelésszociológiába* [Introduction to Sociology of Education]. Nemzeti Tankönyvkiadó, Budapest

Kozma, T. (2018): Tanulói közösségek és társadalmi innovációk [Student communities and social innovations]. *Educatio*, 2, 237-246.

Krejsler, J. (2007): Becoming individual in education and cyberspace. *Teachers and Teaching*,10. https://www.tandfonline.com/doi/abs/10.1080/1354060042000243060?journalCode=ctat20 (2022. 01.11.)

Kvale, S. (1996): *Interviews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, CA, Sage.

Lannert, J. (2009): *Az oktatási ágazat kutatási, fejlesztési és innovációs rendszerének elemzése* [Analysis of the research, development and innovation system in the education sector]. https://www.t-tudok.hu/file/tanulmanyok/v_zarotanulmanykfi.pdf (2022.02.18.)

Moate, J. (2011). Voicing the challenges faced by an innovative teacher community. *Teachers and Teaching*, 17. https://magdalenaszwec.weebly.com/uploads/4/0/7/4/40749007/moate_-_voicing_the_challenges_of_an_innovative_teacher_community.pdf (2022.05.01.)

Nemerzitski, S., Loogma, K., Heinla, E., Eisenschmidt, E. (2013): Constructing model of teachers' in school environment. *Teachers and Teaching*, 19, 398-418.

OECD (2010a): *Ministerial report on the OECD Innovation Strategy. Innovation to strengthen growth and address global and social challenges*. Key Findings. Paris. https://www.oecd.org/sti/45326349.pdf (2021. 10. 05.)

OECD (2010b): *The OECD Innovation in Education Strategy: Getting a Head Start on Tomorrow*, OECD Publishing, Paris. http://www.oecd.org/sti/inno/theoecdinnovationstrategygettingaheadstartontomorrow.htm (2022. 01. 17.)

OECD (2014): *Measuring Innovation in Education: A New Perspective, Educational Resarch and Innovation*, OECD Publishing. Paris. https://www.oecd-ilibrary.org/education/measuring-innovation-in-education_9789264215696-en (2022. 04. 18.)

OECD (2016): *Innovating Education and Educating for Innovation. The Power of Digital Technologies and Skills*. Paris. http://www.oecd.org/education/ceri/GEIS2016-Background-document.pdf (2022. 04. 30.)

Pusztai, G. (2007): The long-term effects of denominotainonal secondary schools. *European Journal of Mental Health, 2*(1), 3-24.

Pusztai, G. (2015): *Pathways to success in higher education: Rethinking the Social Capital*

Theory in the Light of Institutional Diversity. Peter Lang Verlag, Frankfurt am Main

Ricoeur, P. (2002): The text as a model: hermeneutic understanding. *Szociológiai Figyelő*, 1-2., 60-76.

Sántha K. (2009): *Bevezetés a kvalitatív kutatás módszertanába* [Introduction to the methodology of qualitative research]. Eötvös József Kiadó, Budapest

Sántha K. (2013): A harmadik paradigma a neveléstudományi vizsgálatokban [The third paradigm in educational research]. *Iskolakultúra*, *23*(2), 82-91.

Sántha K., Katona I., Subert P. (2017): *A kvalitatív pedagógiai kutatásmódszertan hazai fejlődéstörténete négy neveléstudományi folyóirat tükrében: fókuszban a 2011–2015 közöti időszak* [The Hungarian history of the development of qualitative research methodology in the light of four educational journals: focus on the period 2011-2015]. http://nevelestudomany.elte.hu/downloads/2017/nevelestudomany_2017_2_15-25.pdf (2021. 10. 12.)

Szabolcs É. (1993): Tartalomelemzés [Content analysis]. In Csapó, B. (ed.) *Bevezetés a pedagógiai kutatás módszereibe* [Introduction to pedagogical research methods]. Keraban Könyvkiadó, Budapest, 273-276.

TALIS (2008): *Technical Report*. https://www.oecd.org/education/school/44978960.pdf (2021. 10. 22.)

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