EFFECTS OF INTERGENERATIONAL LEARNING IN A SMALL MANUFACTURING COMPANY

EVA NOVÁČKOVÁ

Abstract
This paper deals with the effects of intergenerational learning and forms part of an empirical study of intergenerational learning in the workplace that was conducted in a small manufacturing company. The main objective of the study is to answer the following question: What are the effects of intergenerational learning in the workplace? In order to investigate the issue as thoroughly as possible, the entire research survey was designed as a case study, applying both qualitative and quantitative data collection methods. Answers to the main research question of this paper were obtained by conducting fourteen individual semi-structured interviews that enabled us to identify the effects of intergenerational learning, ranging from positive to negative.

Keywords
intergenerational learning, workplace, intergenerational learning in the workplace, effects of intergenerational learning
Introduction

Intergenerational learning may be viewed as a phenomenon that has been present throughout the history of mankind. As societies and cultures have developed, preference has been given to different forms of knowledge transfer, either consciously or unconsciously obtained.

In terms of where intergenerational learning takes place, we can assume that these processes occur anywhere that at least two different generations meet, including working environments. The working environment gives people opportunities to exchange the knowledge, experience, and skills that are vital in contemporary society where the ability to adapt to constantly changing technologies, knowledge, and requirements is highly valued. It is reasonable to assume that employees engage in the transfer of work experience, e.g. with regard to substitutability among employees or the ageing of the organization, that might cause existential problems for numerous workplaces and companies if ignored. On the other hand, some employees may want to protect their professional knowledge or specific skills from others for various reasons, for instance in order to maintain their competitiveness on the labour market. Hence, what do we know about intergenerational learning and its effects in the workplace?

Intergenerational learning in the workplace

The very term *intergenerational learning* tells us that it is learning among generations. Průcha, Walterová, and Mareš define this type of learning (2013, p. 154):

The term refers to the processes of learning that occur in the contact between members of different generations, in particular between parents and children, grandparents and grandchildren, between other adults (e.g. sport coaches) and children or adolescents, etc. It includes mainly processes of informal learning, for which there has been so far little clarification. And yet informal intergenerational learning is highly important in the life of an individual as it contributes to socialization and enculturation of the population of children and youth.

It should be noted that this definition is oriented mainly toward children and youth and their incorporation into society and presents intergenerational learning as being connected primarily with informal learning. This intergenerational learning process is characterized by acquiring knowledge and skills from everyday experience and activities carried out in various social contexts.
A more recent definition no longer relates intergenerational learning primarily with informal learning, but presents this learning as both intentional and unintentional, conscious and unconscious, non-formal and informal (e.g. Průcha & Veteška, 2014), and as a two-way process (European Map of Intergenerational Learning, 2015):

Intergenerational Learning (IL) describes the way that people of all ages can learn together and from each other. ... Beyond the transfer of knowledge, IL fosters reciprocal learning relationships between different generations and helps to develop social capital and social cohesion in our ageing societies.

Learning specialists (e.g. Geist, 2000; Nakonečný, 2013) point out that the task of providing a general definition of learning is rather difficult, given that life encompasses an abundance of learning situations. Selecting from a great number of delimitations of the term, I present the definition of Hartl and Hartlová (2010, p. 637), which comprehensively grasps the essence of learning: “Learning is an active and creative process that extends the innate genetic programme and expands possibilities for an individual.” The meaning of learning thus rests in adapting to new situations. Hartl and Hartlová (2010) add that learning in an organization is aimed at improving the quality of performance, the acquisition of knowledge, and the attitudes that play a positive role in the long-term perspective of an individual; at the same time, it is a process enhancing the work of an organization as a whole.

The issue of intergenerational learning in the workplace is discussed e.g. by Ropes (2012), who claims that this process is aimed at maintaining or increasing organizational capacity. This can be achieved by expanding employee knowledge and skills as well as by improving organizational processes (Ropes, 2012).

Spanning (2008) commented on this type of learning:

Intergenerational learning in organizations is a means of responding to the inequality on the labour market by increasing intergenerational participation in professional training and in the labour market. The skills of the older workers and competences of the young people entering the labour market must be evaluated and advanced by complementing and inspiring one another.

Spanning (2008) also concluded that generational inequality weakens not only the economy and society as a whole, but also the organizations and individual employees. According to her, there is a risk that the skills and knowledge of older workers will be lost after they retire. The author also presented an intriguing view of the role of inexperienced workers in multigenerational teams (2008, p. 3):
Multi-generational teams allow for mutual exchange of knowledge. This broadens the role of intergenerational teams beyond the framework of one-way transfer of knowledge from specialists to less experienced workers in order to facilitate development and training of the latter. Such teams help to uncover submerged knowledge possessed by the more experienced workers that are no longer recognized or used. Younger and less experienced workers play the role of a catalyst releasing and strengthening the knowledge base of the experienced workers that would otherwise remain ‘forgotten’ and thus unused if these employees worked only among their peers.

Effects of intergenerational learning

According to researchers studying the effects of intergenerational learning, the results of such learning may have positive effects on both generations. Pinazo-Hernandis (2011) pointed out that this unique type of learning in general generates greater understanding and respect among generations and contributes to building cohesion.

Drawing on the results of research of various authors, Ropes (2012) concluded that from a sociological perspective the process of intergenerational learning involves, in relation to the younger generation in particular, socialization, including: modelling behaviour, enhancing social skills and personal development, building positive attitudes to others, reducing negative stereotypes, and enhancing mutual understanding. The benefits for the older generation have been summarized by Ropes (2012) as follows: social inclusion, expansion of social networks, satisfaction from one’s own contribution, reinforcement of the sense of self and—as with the younger generation—reduction of negative stereotypes and improvement of mutual understanding. The positive effects of intergenerational learning are interpreted for both generations as motivational factors for further participation. Educational programmes are presented as programmes focusing primarily on helping the younger generation, where probably the most common example is mentoring.1 However, the assistance provided by younger colleagues in acquainting the older generation with newer technologies also deserves attention (Ropes, 2012).

1 Mentoring “represents the process of guidance, explanation, development initiation, communicating of comments over longer periods of time and periodical supervision of a worker, where the worker undergoing the training is given a certain degree of initiative and responsibility – including the chance to select a mentor/advisor” (Barták, 2007, p. 142).
I believe that it is important to present the results of the research conducted by Rabušicová, Kamanová, and Pevná (2011), in which they captured the impact of intergenerational learning in the fields of sensory-motor, verbal-cognitive, and social learning, and their combinations. It is possible to identify the benefits on the sensory motor level that are based on sensory perception; on the cognitive level, where the cognitive abilities of individuals are employed and strengthened; and on the social level, where the effects can be observed not only in the fact that members learn behaviour patterns from one another, but also in the existence of mutual communication and in the influencing of relationships. It should be noted that the results are based on research relating to a different social environment: the family setting. However, this does not prohibit comparing it with the situation in the work environment.

It follows from the aforementioned listings of effects that the processes of intergenerational learning always concern the realm of relationships since they are based on intergenerational contact. Vendramin (2009) highlights the fact that as far as intergenerational relationships are concerned, it is not possible to take for granted the assumption that generation is a key variable differentiating individuals in the workplace. She considers the forms of relationship to work, which need not be age-related, to also be significant\(^2\). This leads us to emphasize the variability of individuals, not only from an intergenerational perspective but also within a single generation, providing a basis for the assumption that the views of what is and is not moral, for instance, or what is and is not important in life, differ among members of a single generation, which may logically have an impact on intergenerational relations.

Workplace-related research has revealed that “young employees (under 30 years) are exposed to a greater degree to uncertainty and unemployment, but they benefit from a positive educational and digital difference” (Biggs & Lowenstein, 2011, p. 123). In contrast, the generation of adults 30 to 50 years of age have a relatively stable position, but they find it difficult to combine career with family care. Employees over 50 are most threatened in the case of business restructuring, in particular due to a decreasing level of skills (Biggs & Lowenstein, 2011).

It is clear that these critical aspects, in combination with the diverse approaches and attitudes of individual generations and awareness of the tense situation on the labour market in terms of the number of vacancies, could lead to a conflict within an organization, which could endanger the performance of the organization (Spannring, 2008).

One of the locations where intergenerational learning is presupposed is the workplace. It is a place of potential meetings of different generations with expected mutual interaction. I focused on one example of such a workplace, a small manufacturing company, where my objective was to examine how and under what circumstances this learning occurs in the workplace. The aim of this paper is to answer the following research question: What are the effects of intergenerational learning in the workplace?

Research methodology

In order to answer this question, I chose a case study as the research design. From amongst the features summarized by Sedláček (2007) for a case study, I will mention a key characteristic from my perspective: maximum effort to understand the case in its natural context. Therefore, this case study cannot be expected to define the general principles of how a specific phenomenon works. However, it is important to monitor how the phenomenon under examination is experienced by the actors concerned, which is, according to Pavlásek and Nosková (2013), one of the goals of the humanities and social sciences that apply qualitative research techniques.

The primary step in conducting a case study is the choice of the case, which is dependent on defining the selection criteria (Sedláček, 2007). Given the topic, I selected the criterion of the size of the organization, which should correspond to the size of a small manufacturing company. As a social group, I understood it as falling under the category of small social groups. Another criterion was contact between at least two generations in the workplace dealing with manufacturing processes. At the same time, I intended to take into consideration the requirement of local accessibility, in particular on account of the time demands of such a survey. The choice of the case was therefore intentional. I addressed a company that I knew fairly well. This was motivated by my intention to use my personal knowledge of the environment surveyed. I was concerned about how my research would be received by the management of the company and the potential respondents, but both parties were forthcoming. Since I could not rely in my research on a well-developed theory of the examined phenomenon, this study is in the category of cases attempting to analyse a phenomenon under examination and the contextual conditions.
At first, I found the fact that I was familiar with the environment and with all the actors was convenient, since it helped me to become oriented in the monitored case fairly quickly. I tried to make use especially of the advantage of understanding that was based on some shared experiences. On the other hand, I could not reciprocate the respondents’ trust by conveying my own feelings since, as Vaněk pointed out (2004), this would cause a collapse of the entire interview structure.

I found the ethical side of the research also somewhat problematic because the people that I had some former ties with suddenly became my informants. It was in particular difficult to find a balance between my personal attitudes towards the people and the learning situations and the effort to keep the role of an impartial and patient interviewer and listener. Despite these difficulties, I believe that my knowledge of the environment was primarily beneficial for my understanding of the phenomenon investigated.

The research study was carried out in a Czech engineering company. The legal form of this business is a limited liability company. The company has been active on the Czech market since the late 1990s. At the time of the research, the company had 31 employees.

The team was dominated by men: there were 22 male employees, 17 of whom worked physically in the workshops. Five men were part of the technical-administrative staff, whose main job in general is mental activity. There were nine women: four worked in a manual position, four were employed as technical-administrative staff, and one worked as a cleaning assistant. The average employee age at the time of data collection was 53 years. The youngest employee was 26 and the oldest 79 years of age. Three generations were present and interacting in the workplace.

Within the empirical part of my work, I considered different ways of delimiting a generation – whether a generation should be defined solely on the basis of age, or whether e.g. the time spent in a particular profession or the duration of the employment relationship should be taken into account as

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3 Pursuant to Act No. 90/2012 Coll., on Commercial Companies and Co-operatives (Business Corporations Act), Part IV, Chapter 1 – General Provisions, Section 132: “(1) A limited liability company is a company whose members are jointly and severally liable for the company’s debts up to the amount at which they have not fulfilled their contribution obligation, pursuant to the record in the commercial register at the time when fulfilment was demanded by a creditor.” (Parliament of the Czech Republic, 2012).

4 The period including November and part of December 2014.

5 The total does not include the two company owners, who hold positions as both executive directors and members of the company.

6 Examples of these professions include: accountant, design engineer, assistant, and quality controller.
a decisive factor for the classification. In the end, I decided to distinguish three generations solely on the basis of age. To differentiate among them, I termed them younger generation (ages 20 to 40), middle generation (ages 40 to 60), and older generation (ages 60+). There were 3 younger generation employees, 17 middle generation employees, and 11 older generation employees.

In order to apply a qualitative data collection approach, which was the basic method for obtaining an answer to my research question, I selected individual semi-structured interviews with questions prepared in advance without any answers provided. The individual interviews, with 14 respondents altogether, were conducted in November and part of December 2014. All respondents were familiar with the interview topic in advance, as I had asked them in June 2014 to complete a questionnaire in which I explained intergenerational learning and stated that I wanted to verify that it occurs in the workplace.

The respondents were selected so that manual and technical-administrative workers from all age groups would be represented. Before starting the interviews, I assured the respondents that data would be processed anonymously and requested their consent to audio-record the interview. Only one respondent was surprised by my request; this respondent consented only after I assured him that the other respondents had also consented to the recording. Even though I had some shared experiences with some of the respondents, I asked as many additional questions as possible in order to ensure that I correctly understood their answers.

I transcribed the interviews into an electronic form. Even though literature dealing with qualitative research (e.g. Hendl, 2012) mentions the possibility of using software to assist in interpreting interviews, I chose to manually code the interviews, using a text editor to create summary tables that contained various notes and data. I endeavoured to achieve as sensitive coding as possible. To ensure the reliability and validity of the research study, I also focused on fulfilling the criteria of qualitative research described by Švaříček (2007). I selected the credibility criterion, to which I assigned reflection of colleagues and use of quotations, and the authenticity criterion, which required me to focus on maintaining an impartial attitude to prevent the distortion of results by subjective interpretation and bias. As far as the

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7 An overview of variables relating to individual respondents who were interviewed forms part of the master’s degree thesis Mezigenerační učení v malé výrobní firmě (Nováčková, 2015).

8 The longest interview lasted for 1 hour 2 min.; the shortest was 18 min. The average interview duration was 35 min.
techniques to ensure reliability are concerned, I relied on a thorough and accurate transcription of the recordings to which I listened several times during the transcription and subsequently on repeated coding. When coding, I first read a certain portion of the transcribed and printed text of the interview – usually a paragraph. Then I coded the transcription line by line, i.e. I highlighted the terms that, in my opinion, best characterized what the particular part of the text was about. This procedure generated a large quantity of terms that I tried to classify into categories, grouping concepts that related to a particular phenomenon and were more abstract than the terms themselves. I completed this process of open coding by thinking about the properties and levels of the categories created. In the next step, I applied axial coding, in which I linked individual categories on the basis of their function.

Results

Data analysis of the interviews revealed positive effects, in the form of benefits at the individual and company levels, and negative effects that ultimately, even if the respondents were unaware, also had an impact at the individual and company levels.

The benefits of intergenerational learning for the recipients include, on the individual level: gaining a broader perspective, acquiring knowledge from new information, and feeling satisfaction from a new scope of knowledge. Saving time and eliminating trouble in seeking problem resolutions were also mentioned. Respondent Marek said:

*First, one kind of saves a lot of time and I don’t have to worry about it. You see the passion in the first place and rather than spending two hours thinking: Will it work or not? I’d rather ask. I don’t have to mull over it and worry as one can also dream about it after having thought about something for an hour or two. So the first thing is that I am not stressed and worried and that I find a solution right away and am kind of relaxed.*

Respondents in the role of recipients also appreciated that they were provided with necessary assistance and that they had a chance to learn from the experience of their colleagues. Many respondents said that they preferred working in a multi-generational group since taking advantage of the strengths of individual generations leads to good results on the company level and to an exchange and consultation of ideas. The younger generation appreciated the older employees especially for their accumulated experience. One of the youngest respondents said that the experience of his older colleagues was more important for him than information from books and the internet. The older generation appreciated the younger generation for their revolutionary
ideas, courage to experiment, enthusiasm, independence, ability to defend their ideas, knowledge of technologies, and new approaches to dealing with situations or problems. In the role of educators, respondents often expressed satisfaction from passing on experience and providing assistance. On the company level, benefits in the form of achieving the required work results were identified and mentioned by the respondents.

Intergenerational learning arose from consultations and developing ideas together. I believe that this process led not only to enhancing mutual communication and influencing relationships, but also to strengthening the cognitive abilities of the participants. In addition, since the educators in manual activities often combined passing their experience on through a practical demonstration on a manufacturing machine with supervising how the operation was carried out by the recipient, there were also benefits on a sensory-motor level. The effects identified by the respondents were closely related to the view that the respondents had of intergenerational learning. In terms of positive effects, the educators perceived intergenerational learning as a welcome challenge, in which individuals like to deal with new situations, as a good feeling from passing on experience, and as a relief from the perceived burden of working duties; older educators also mentioned feeling rejuvenated.\textsuperscript{9}

Some respondents mentioned negative effects of these processes. Some viewed intergenerational learning with distrust. A significant negative effect identified by respondents was the concern that the information passed on would be misused by the recipient, who would present the newly obtained information or advice necessary for solving a problem as their own idea. It is understandable that in a small manufacturing company, the educator would soon learn about this situation and feel discouraged from any further discussion of issues with the recipient. This experience would lead the educators to consider the depth of information they are willing to pass on to others. After a negative experience with a transfer of information, one of the educators even expressed the opinion that next time he would refuse to give any advice to a potential requester. It is evident that these events had an impact on participant relationships.

The situations encountered in the workplace also included a situation in which an educator feared that his position was threatened because of transferred experience. The fact that the transfer of experience in a multigenerational group does not suit everybody’s needs, as illustrated by the following transcription of part of an interview with a representative of the

\textsuperscript{9} For more on educator typology and recipient strategies see: Nováčková, Eva. (2015). Mezigenerační učení v malé výrobní firmě. Master’s degree thesis.
middle generation, can be also seen as a consequence of a negative experience with intergenerational interactions

Vladimír: “I would prefer to be with colleagues of my age.”

T\(^{10}\): “Why?”

Vladimír: “We get along better because I think we went through a drill. Maybe not all of us, but the times were different.”

T: “What times do you think we live in now?”

Vladimír: “Well, everyone is in fact glutted with everything.\(^{11}\) And them, this generation of about 25, they don’t know what it was like and how we lived before. They have a different attitude to the old, too.”

The situation in which an educator was bothered by passing on experience by answering the same questions asked repeatedly by a single person can also be identified as a negative effect. Such transfer of experience did not have any positive effects for the educator, e.g. in the form of a good feeling from giving help, but rather bothered him and discouraged him from further interactions with the recipient. Even though experience was passed by the educator on the basis of the recipient’s request, the educator’s effort did not bring the desired effect to the recipient either. The effects identified in this situation may be classified as zero effects. Similarly, the effort of educators who transferred their experience on their own initiative in situations in which they perceived work performed by a colleague as ineffective or of poor quality and at the same time their effort was not accepted by the recipient are also zero effects: the anticipated benefits did not materialize. This finding is based e.g. on the following statement of respondent/educator Pavel: “I saw that he was doing it wrong and so I went to tell him how to do it. But when I saw him again a short while later, he was still doing it his own way.” It is not possible to know whether the work of the potential recipient was in fact ineffective or of poor quality. However, it is reasonable to expect that the attitude of the educator, unsolicited help, could be a potential source of conflict in the workplace. It is debatable whether we can interpret a learning situation in which the process of learning – in this case a clear acceptance of the educators’ efforts by the recipient – has not been completed as intergenerational learning. At the same time, I believe that the decisive factor in determining the successfulness of intergenerational learning processes is the willingness of both the educator and the recipient to take part in these processes.

\(^{10}\) T = interviewer.

\(^{11}\) The expression “glutted” was not part of the authentic recording, but it is a substitute for the originally used word.
Discussion and Conclusion

The processes of intergenerational learning were in operation because several generations interacted and communicated in the workplace, primarily in order to achieve common work goals.

Based on the survey, I can conclude that the learning observed can be understood as a method or form of lifelong learning. The learning situations were not related only to a specific age group but concerned all the generations involved in the study. The learning situations can be viewed as a form of further professional education that is not necessarily a follow-up to initial formal education, as some of the respondents held a job for which they lacked the initial required education in the field. Learning situations clearly took place on the level of intergenerational learning and on the level of peer learning, the existence of which should be acknowledged. However, the central phenomenon examined was intergenerational learning, and therefore the presented information has been filtered with regard to this phenomenon.

The primary aim for the respondents of the learning observed in the workplace was dealing with new situations, which had a positive impact both on individuals and on the work of the organization as whole, as discussed by Hartl and Hartlová (2010). The benefits of intergenerational learning outlined by Ropes (2012) were also demonstrated in this case study. These benefits included mainly benefits in the field of personal development, where the recipients gained new skills and broadened the scope of their professional competence. On the other side, educators felt a sense of satisfaction from their contribution. The benefits described by Rabušicová, Kamanová, and Pevná (2011) in connection with intergenerational learning in the family environment can be also confirmed. I also identified benefits on the sensory-motor, cognitive, and social level in the working environment.

When studying the literature, I did not find any author who mentioned, in connection with the working environment, any negative or zero effects of intergenerational learning, such as those that I identified in this case study.

I see the delimitation of generations in this study as an issue that has not been fully resolved. The reason for this position is that the middle generation (40 to 60) as I defined it was, in a way, overlooked by the younger respondents (20 to 40) and was evaluated simply and logically as the ‘older generation’. The older generation (60+) saw the middle generation as a peer group even though there was a generational distance between them. This leads me to conclude that the delimitation of individual generations is a matter that deserves careful and deliberate consideration in preparing a research project. This situation can be resolved by the researcher by including other variables among the criteria for delimitation. However, it seems that, for instance, the length of employment with the company did not play any role in this case.
study in terms of the existence of intergenerational learning in the workplace. Even though none of the respondents was a newcomer to the workplace,\textsuperscript{12} intergenerational learning was provably taking place.

It will be interesting to follow further research findings of experts on intergenerational learning. From my personal perspective, it seems useful to examine and explain these processes in various social environments so that the potential of intergenerational learning can be fully used in the transfer of knowledge, skills, and values, in particular at this time in history that may be characterized by the significant demographic change of an ageing population. Another important aspect is the emphasis placed on the concept of lifelong learning that presupposes that individuals learn over the course of their lives, since in an era of constantly developing technologies and new knowledge, we cannot rely on what we learned in the course of our initial school education. The ability to adapt to new conditions and requirements is, therefore, vital for each of us. Intergenerational learning is, in my opinion, an appropriate form of learning, in particular in a society characterized by a greater proportion of older people. It would be optimal if this learning combined the advantages or strengths typical for individual generations.

References


\textsuperscript{12} The shortest period for which a respondent had been an employee of the company at the time of the research study was five years.


**Corresponding author**

Eva Nováčková
Graduate of Master’s degree programme in Education, Department of Educational Sciences, Faculty of Arts, Masaryk University
E-mail: eva.novackova@mail.muni.cz