

Jolanta MAJ  
Politechnika Opolska  
Wydział Ekonomii i Zarządzania  
jola.h.maj@gmail.com

## **DIVERSITY OF COMPETENCIES OF EMPLOYEES DUE TO AGE ON THE EXAMPLE OF TEACHERS IN THE OPOLE VOIVODESHIP**

**Summary.** The following paper presents an analysis of the level of competencies of teachers in the Opole Voivodeship. The aim of the paper is to determine if there is a relationship between the age of teachers and their level of competencies. The analysis has been based on CAWI research and took the form of a self-assessment of the competencies level made by the teachers and an assessment made by principals. As a result it was found that there is no correlation between age and the level of competencies and it is difficult to identify differences because of the age.

**Keywords:** age management, diversity management, competences, population ageing, teachers, Opole Voivodeship.

## **ZRÓŻNICOWANIE KOMPETENCJI PRACOWNIKÓW ZE WZGLĘDU NA WIEK NA PRZYKŁADZIE NAUCZYCIELI W WOJEWÓDZTWIE OPOLSKIM**

**Streszczenie.** Artykuł przedstawia analizę poziomu kompetencji nauczycieli województwa opolskiego. Głównym jego celem było ustalenie, czy istnieje zależność pomiędzy wiekiem nauczycieli a ich poziomem kompetencji. Podstawą do udzielenia odpowiedzi były badania CAWI, przeprowadzone wśród nauczycieli i dyrektorów szkół. Analiza poziomu kompetencji została przeprowadzona na podstawie samooceny nauczycieli oraz oceny przedstawionej przez dyrektorów szkół. W wyniku badań ustalono, że nie ma korelacji pomiędzy wiekiem a poziomem kompetencji nauczycieli według dyrektorów szkół.

**Słowa kluczowe:** zarządzanie wiekiem, zarządzanie różnorodnością, kompetencje, starzenie się społeczeństwa, nauczyciele, województwo opolskie.

## 1. Introduction and the methodological basis of the paper

Population ageing, which nowadays affects most of the developed countries including Poland causes age to become an increasingly important variable affecting labour markets and organizations management processes and their human resources management. This process irreversibly affects the shape of the labour market and it will increase the proportion of older people in the workforce, through a systematic reduction of the number of young people. According to the concepts of diversity management, diversification of human resources because of different variables, including age, brings a number of benefits for an organization<sup>1</sup>. The importance of age for managing an organization has been emphasized in the age management approaches. Age management is a very broad term and can be analysed from many perspectives. Fabisiak and Prokurat show that it can be analysed from an individual perspective as a way of more efficient use of ones capabilities and a way to stay active on the labour market. The second possible perspective is the organizational perspective. In this approach age management is a form of human resources management and is important in processes like recruiting, organizational change, knowledge management. Age management is also a macroeconomic issue which should be considered by policymakers and companies as an approach closely connected to demographic change<sup>2</sup>. In this paper the individual and organizational approach have been chosen with emphasis put on competencies of particular employees and competencies management. Studies show that employers appreciate older workers as likely to contribute a lot to the organization, mainly thanks to their rich experience and broad knowledge. Older workers are seen as mature, experienced, responsible and less likely to change jobs. On the other hand, part of the research suggests that there are a number of prejudices in relation to older workers. There are being perceived, among others, as inflexible, resistant to assimilating new knowledge, learning processes, resistant to change or not innovative and creative<sup>3</sup>. Therefore there is a relationship between age and functioning of older people in organizations and their perception and evaluation.

Due to the fact that the concept of competency management is gaining importance and competence management as a specific axis is seen as one of the ways of managing diversity, the main purpose of this paper and studies conducted was an attempt to answer the question of whether there is a relationship between age and the competencies among employees as well as an diagnosis of the self-perception of this relationship by individual employees and an

---

<sup>1</sup> Maj J.: Zarządzanie różnorodnością w przedsiębiorstwie a społeczna odpowiedzialność przedsiębiorstw, [w:] Karczewski L., Kretek H. (red.): Odpowiedzialny biznes i konsumeryzm wyzwaniem XXI wieku. Tom 1. Wyd. Państwowej Wyższej Szkoły Zawodowej w Raciborzu, Racibórz 2012.

<sup>2</sup> Fabisiak J., Prokurat S.: Age Management as a Tool for the Demographic Decline in the 21st Century: an overview of its Characteristics. „Journal of Entrepreneurship, Management and Innovation (JEMI)”, Vol. 8, Issue 4, 2012, p. 83-96.

<sup>3</sup> Loretto W., White P.: Population ageing and older workers: employers' perceptions, attitudes and policies. „Population, space and place”, No. 12, 2006, p. 341-352.

diagnosis of the perception from the perspective of their superiors. As part of the conducted research additional research questions, that would make it possible to answer the question of whether older workers make an effort raising their competence, the most popular forms of skills acquisition, possibly reasons for the not raising their competence, were asked. For the purpose of the study there search population was limited to the professional group of teachers in the Opole province, due to the exploratory nature of the study, which could become a contribution to broader analysis of the issue. In order to answer the research questions a CAWI study has been conducted. On one hand the study was carried out among teachers in the Opole Voivodeship, in order to diagnose their self- assessment of their level of competencies. On the other hand a CAWI survey among headmasters was carried out, in order to assess the levels of competencies of teachers of different age groups, made by their immediate superiors and thereby obtain an external point of view on a subjective assessment of competence made by the teachers themselves. The use of a dual perspective was intended to increase the level of objectivity of the findings. The survey used random sampling, as the selection unit a school was chosen. The population size ( $N = 1115$ ) was estimated based on the list of schools within the Opole province. The survey was conducted on a representative sample of 286 institutions, of which for the study teachers and directors were invited.

The sample size ( $n = 286$ ) results from the assumed parameters of reliability. The study assumes a confidence level of 95%, the estimated proportion of the population at 0.5 and the value of the maximum error of 5%. Adopted respectable sampling error research indicates that the test results obtained may differ by up to 5%, which should be considered by analyzing the measurement results. Founded size of the maximum error allows the formulation of conclusions regarding the analyzed area. Implementation of a CAWI survey is cost-effective, but carries the risk of a low level of responsiveness. To minimize the impact of this risk organizational activities aimed at obtaining full sample were undertaken. First of these was the assignment for each of the schools with a token, which is a special designation that allows monitoring the involved in the study, as well as sending reminders of earlier invitations for participation.

In order to carry the research random sampling survey of schools was used with the assumption that each of them had the same chance of getting into the research sample. Up to 286 randomly selected schools were sent an invitation to participate in the study. In the case of unsuccessful delivery of the e-mail invitation, a telephone contact with the school to update the address was made. Then, after three days a reminder was send to those schools, which had not responded. Another reminder was sent one week after the first. In order to complete the survey sample, telephone contact with the facility of direct invitation to the study followed, in the case of a categorical refusal to participate in the study another school were drawn in order to carry out initial assumptions concerning sampling. The final sample size was  $n = 286$ .

In view of the fact that the analysed issues relating to competencies and the diversity of ways of defining competence is a matter well described in the literature<sup>4</sup> and meta-analysis of the concept of competence and management in organizations was not the aim of this study, Grzegorz Filipowicz's simplest definition of competence understood as "... a dispositions in terms of knowledge, skills and attitudes that allows to accomplish professional tasks at the appropriate level"<sup>5</sup> was used for the purpose of the study. It should be stressed out, that previous analyses also identified important characteristics of competence: their variability over time, important primarily in terms of raising their level and undertaking action in this regard and the fact that they manifest themselves through specific behaviour, which was used during the conceptualization and operationalization in this paper and therefore, during the construction of the research tool, where the respondents were requested to assess the level of their own competencies, were presented a short description of the behaviour constituting the competencies. Choosing a set of competencies for the analysis in this study the starting point was the Duplex Model of Professional Competencies, which consists of core and specialized competencies. Because specialized competencies are closely related to one's particular occupation and job title, the studies focused on the core competencies, regarded as the basis for the specialized competencies, independent of the nature of the organization within which the person operates, and which a person gains through his or hers whole life not necessary in a direct connection with their occupation<sup>6</sup>. Thus, according to the author, by choosing the core competencies for this analysis it becomes more legitimate to draw conclusions about the relationship between competencies and age. Just as in the mentioned model, the author spun off four main categories of competencies, which then were assigned single competencies with a short description of the behaviour constituting them, presented in Table no. 1.

Table 1

## The set of core competencies

Category	Competencies	Definition
Personal	Stress management	The ability to maintain high efficiency in working under pressure and in difficult conditions
	Entrepreneurship	Activities focused on improvement of work processes, going up against difficulties and looking for new challenges

<sup>4</sup> Filipowicz G.: Zarządzanie kompetencjami zawodowymi. Polskie Wydawnictwo Ekonomiczne, Warszawa 2004; Oleksyn T.: Zarządzanie kompetencjami. Teoria i praktyka. Oficyna Ekonomiczna, Kraków 2006; Orczyk J.: Wokół pojęć kwalifikacji i kompetencji. „Zarządzanie zasobami ludzkimi”, nr 3-4, 2009, s. 19-32; Jurek P.: Zarządzanie kompetencjami zawodowymi pracowników w nowoczesnych organizacjach, [w:] Zawadzka A.M. (red.): Psychologia zarządzania w organizacji. Wydawnictwo Naukowe PWN, Warszawa 2010, s. 77- 114; Hawrysz L.: Kompetencje menedżerów klastrów. „Organizacja i Zarządzanie, Kwartalnik Naukowy”, nr 4/(16), Wydawnictwo Politechniki Śląskiej, Gliwice 2011, s. 175-188; Filipowicz G.: Zarządzanie kompetencjami. Perspektywa firmowa i osobista. Oficyna Wolters Kluwer business, Warszawa 2014, s. 11-78.

<sup>5</sup> Filipowicz G.: Zarządzanie kompetencjami zawodowymi, op.cit., s. 8.

<sup>6</sup> Jurek P.: op.cit., s. 87-92.

cont. table 1

	Conflict management	Dealing with conflict situations by achieving a compromise and settlement of disputes among co-workers or within a team
	Self - improvement	Continuous improvement of ones skills and broadening the scope of knowledge
	Self - confidence	Self- knowledge and the ability to rely on ones abilities, experience, knowledge and strengths, confidence in ones own capabilities in the face of obstacles and new challenges
	Persistence	The ability to make an effort in achieving ones objectives, despite the various obstacles, the ability to motivate yourself, despite discouragement
Social	Cooperation	The ability to stimulate and promote cooperation in the team, creating a harmonious, objective-oriented team-oriented objectives
	Communication	The ability to a clear and precise expression, ability to understand others
	Influence	The ability to convincing colleagues to the presented position and a successful persuasion to the proposed course of action
	Knowledge sharing	The ability to share practical knowledge and advice with colleagues in a manner useful to facilitate and implement in their professional tasks
Organizational	Planning	The ability to manage ones own time and the ability to select appropriate methods and resources in planning ones objectives
	Prioritizing	The ability to identify and determine the most important and urgent tasks which allows to perform all major tasks within the available time
	Independent decision making	The ability to make the right decisions under time pressure and in a stressful situation, self-control and reason in decision-making
Cognitive	Control	The ability to monitor compliance with the work plan and to achieve the expected results
	Creativity and innovation	The ability to find new ideas, seize new opportunities, the ability to unlimited and custom thinking

Source: own, based on: Filipowicz G. (red.): Uniwersalny model kompetencyjny. Fundacja Obserwatorium Zarządzania, Katalizator Innowacji, Competency Institute, Warszawa 2011; Jurek P.: op.cit.; Wawrzeńczyk-Kulik M.: Narzędzie M-Astra – zakres zastosowania do oceny kompetencji kadry MŚP. Zeszyty Naukowe WSEI, s. Ekonomia. Zeszyt tematyczny: Węzły gordyjskie rozwoju Polski Wschodniej, nr 3 (1/2011), Lublin 2012.

## 2. Diversity of competencies of teachers in the Opole Voivodship due to their age

The main conclusion from the conducted studies is that there are no major differences in the level of competencies between older and younger teachers. Occurring differences are insignificant, so that it is impossible to establish any significant statistical relationship.

The analysis of the detailed results of the undertaken research shows a preponderant percentage of positive declarations from both the teachers regarding the raising of their own competence and the assessment of their readiness to do so in the opinion of the headmasters. Just 0.81% of the respondents declared that they are unlikely to take action in order to improve their competencies. Some variation because of the age of employees of their readiness to raise their competence was reflected in the evaluation of school principals. As the Figure no. 1 shows, the group of oldest teachers has been evaluated most critically in the opinion of the headmasters.

### Question: How would you assess the readiness of particular age groups of teachers working at your school to raise their own competencies

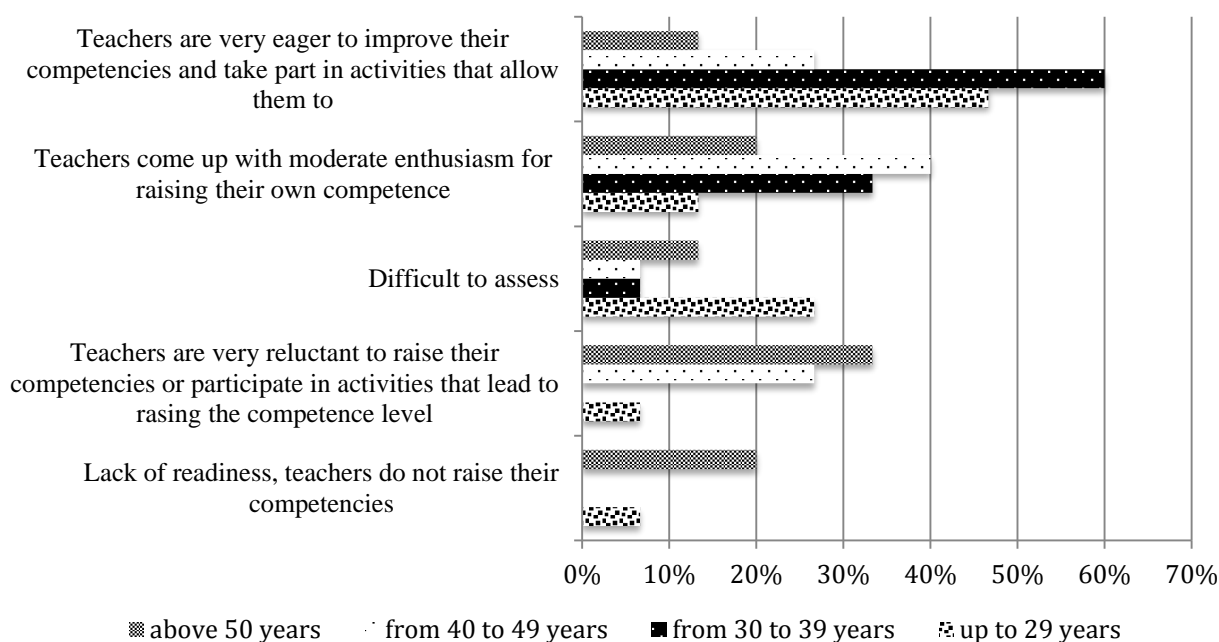


Fig. 1. Assessment of the readiness of particular age groups of teachers to raise their own competencies in the opinion of the principals

Rys. 1. Ocena chęci podnoszenia kwalifikacji nauczycieli poszczególnych grup wiekowych w opinii dyrektorów szkół

Source: own.

In the opinion of more than the half of the principals(53%) teachers aged over 50 do not show readiness (20%) or very reluctant to raise their competence (33%). Interestingly, the other poorly evaluated group was the group of the youngest teachers, under 29 years.

However, this group was assessed by almost 47% of directors as very eager to raise their own competencies. The ambiguous assessment of the youngest teachers may stem from the fact that these are people fresh graduates and it is often because they had just left Universities, they do not see the need to raise their competencies. According to the principals most eager to raise their competencies are the teachers from in middle age group – from 30 to 39 years.

In the survey the respondents were asked to identify the most frequently undertaken action to raise the level of their competencies. Teachers most often named courses and trainings (88.7%), experience gained in the workplace (87.9%) and participation in conferences and lectures (83.9%). The school principals indicated some differences due to the teacher's age. According to the directors, the older teachers are far more likely than others raise their competencies by reading professional books, newsletters and magazines. In their opinion, this form of skills development choose 66.7% of older teachers, while only 33% of teachers aged between 30 and 39 years, 26.7% of teachers aged between 40 and 49 years and 20% under the age of 29 years. This opinion is consistent with the declarations of the teachers themselves, except for the youngest group, in which 85.7% of the teachers declared this ways of raising competencies, thus this way of increasing competencies in their opinion may refer to the period of studying, during which they were obliged to read scientific and professional literature. Additionally, in the opinion of the directors, with age decreases the willingness to raise competence through experience gained in the workplace and the willingness to participate in longer, more complex forms of improvement as training cycles or postgraduate studies, though here, as in general, the willingness to raise competencies of the youngest group was assessed also as weaker, probably again due to the fact that they have relatively recently graduated. Older teachers, more often than other age groups also pointed to other forms of skills acquisition as seminars, debates, consultations, scenarios and website publications or experience collected during study visits in schools in other countries. Among the reasons to improve their competences teachers most often pointed to their own need for self-development – 91.1%, while this cause of raising competencies was reported by 97.7% of older teachers. In contrast to other age groups, older employees relatively rarely, as a cause of increasing competencies pointed the desire career advancement (9.1%), where for comparison, 48.5% of teachers aged 30-39 chose this reason. Self-improvement as opposed to the possibility of career advancement as the main motivator to raise competencies is not surprising in the case of the oldest teachers, because of the simple fact that these teachers usually have already reached the highest level of career advancement.

The main part of the survey was the evaluation and self-assessment of the level of competencies of teachers. Teachers and principals were asked to rate the competence level indicated in Table no. 1 on a scale from 1 to 9, where 1 meant a lack of competence in the subject, 9 was the maximum level of competence and 5 represented the average teacher. The directors were asked to assess the level of competence with the division in age groups of their employees.

In the case of the teachers, they generally self-assessed their own competence at a level similar to, or higher than the average teacher, and the teachers of the youngest group (up to 29 years) almost never assessed their competencies lower. Table no. 2 contains an average of individual self-assessments of teachers' competencies in the given age groups.

The analysis of the results of the self-assessment made by the teachers' of their own level of competencies shows mainly minor differences due to age. Worth pointing out is a certain trend to assess their competencies level as slightly higher among the youngest age group of teachers. The most critical group in assessing their own level of competencies was predominantly the group of middle age teachers between the ages of 40 till 49.

Table 2

## Average self-assessment level of competence of teachers due to age

Competencies	Self-assessment of the level of competencies of teachers of every age group (arithmetic mean)			
	Up to 29 years	From 30 to 39 years	From 40 to 49 years	Over 50 years
Stress management	8	6,58	6,5	7,05
Entrepreneurship	7,43	7,09	7	7,3
Conflict management	7,57	6,85	6,34	7,14
Self - improvement	7,86	7,88	7,34	7,75
Self - confidence	7,14	6,85	6,95	7,36
Persistence	8,14	7,51	7,63	7,86
Cooperation	7,42	7,88	7,32	7,36
Communication	7,71	7,97	7,26	7,8
Influence	7,57	6,33	6	6,41
Knowledge sharing	7,42	6	6,84	6,02
Planning	7,71	7,39	7,21	7,36
Prioritizing	7,57	7,39	7,47	7,66
Independent decision making	7,43	6,97	7,21	7,27
Control	7,29	7,33	7,39	7,48
Creativity and innovation	7,43	7,3	7,11	7,32

Source: own.

Comparing the results of the self-assessment of the level of competencies carried out by the teachers with the assessment of their level of competence made by principals, it is evident that the directors assessed the level of competencies of their teachers generally lower than the teachers did themselves. The results of the assessment made by the principals are presented in the Table no. 3. Another interesting issue is the fact that directors usually assessed the competencies of the youngest group of teachers as the weakest, with the exception of self-



improvement and creativity and innovation. This result can be explained by the fact that on the one hand these teachers, which are at the beginning of their careers, tend to raise their qualifications in order to achieve career advancement, on the other hand, being fresh graduates, they often have innovative and creative solutions in the field of education.

Table 3

The average grade of the level of competence of teachers in the principal's opinion due to the age of the teachers

Competencies	The level of competencies of teachers of every age group in the principals opinion (arithmetic mean)			
	Up to 29 years	From 30 to 39 years	From 40 to 49 years	Over 50 years
Stress management	4	5,73	6,8	6,73
Entrepreneurship	6,13	6,87	6,6	5,53
Conflict management	4,6	5,73	6,73	6,87
Self - improvement	6,8	7,73	6,67	5,6
Self - confidence	4,73	6,47	7,93	8,73
Persistence	6,47	7,27	7,13	6
Cooperation	6,74	8	6,87	5,8
Communication	6,53	8	7,4	6,8
Influence	4,13	6	7,07	7,6
Knowledge sharing	4,27	6,6	7,67	7,47
Planning	4,8	6,4	7,2	7,2
Prioritizing	4,87	6,4	7,2	7,4
Independent decision making	4,73	6,46	7,6	7,97
Control	5,07	6,87	7,66	7,4
Creativity and innovation	6,6	7,87	6,33	6

Source: own.

In general, the most highly assessed group of teachers were the middle age teachers, which may result from the fact that these teachers already have more experience than their younger colleagues, and by the prospect of obtaining professional advancement and competition on the labour market and therefore the need to raise their own competencies level, they are more motivated than the oldest group of teachers. It also coincides with the assessment of the principals regarding the readiness to upgrade the competencies by teachers of different age groups. From the point of view of the adopted research problem particularly important is the lack of significant differences in self-assessment and evaluation made by school heads regarding the particular competencies of the oldest teachers in comparison to teachers from other age groups. The differences are minor and in addition to the assessment of

teacher's competencies, they are not directly proportional to their age. Furthermore, in the case of certain competencies as self - confidence, independent decision-making, conflict management, influence and prioritizing the oldest age group was assessed highest.

Bearing in mind that in some cases the average grade of competencies of teachers is lower than 5, and therefore the calculation cannot be fully accurate, an attempt was made to determine whether there is a correlation between age and the level of competencies of teachers in the opinion of the directors. For this purpose the Yule correlation coefficient was calculated, which amounted to 0.11 and therefore it must be considered that, despite an expected higher uncertainty interval, there is no correlation between age and the level of competencies. Relationship between age and the level of competencies takes in most cases rather the shape of a bell-shaped curve, whose values increases progressively and, after reaching the dominant gradually falls.

### **3. Conclusion**

The presented results call into question parts of the previous analysis or primarily stereotypical views about the negative effects of age on the increase in the level of competencies. Although, due to the willingness to raise their own competencies the oldest group was assessed less favourable than the younger groups of teachers, the vast majority of this evaluation was positive. In addition, with respect to the assessment and self-evaluation of individual competencies, differences between the age groups blurred out. The results defy the stereotypical opinions, according to which older workers have lower competencies than young employees. Teachers are a specific professional group, in which self-improvement and development of their own competencies are very closely related to their profession and carrier advancements. Nevertheless, in an era of increasing emphasis on life-long learning as well as the need to increase its own qualification and competencies forced by the pace of development of the modern economy, teachers, as a professional group, can be considered as a good example for other occupational groups. An important guideline for policy-makers in the field of education and other industries could also be the visible difference in the methods and forms of competence development preferred by particular age groups.

The lack of negative correlation between age and the level of competencies can be seen as vindication or at least the possibility of actual implementation of an age management strategy and diversity management, both in education and in other areas of the economy. Due to the aging of the population and the related changes in population policy and changes in the dynamics on the labour market, it can be said that at least in terms of soft skills, age should not have a negative impact on the competitiveness of enterprises which are relying on older employees.

## Bibliography

1. Fabisiak J., Prokurat S.: Age Management as a Tool for the Demographic Decline in the 21st Century: an overview of its Characteristics. „Journal of Entrepreneurship, Management and Innovation (JEMI)”, Vol. 8, Issue 4, 2012.
2. Filipowicz G.: Zarządzanie kompetencjami zawodowymi. Polskie Wydawnictwo Ekonomiczne, Warszawa 2004.
3. Filipowicz G.: Zarządzanie kompetencjami. Perspektywa firmowa i osobista. Oficyna Wolters Kluwer Business, Warszawa 2014.
4. Filipowicz G. (red.): Uniwersalny model kompetencyjny. Fundacja Obserwatorium Zarządzania, Katalizator Innowacji, Competency Institute, Warszawa 2011.
5. Hawrysz L.: Kompetencje menedżerów klastrów. „Organizacja i Zarządzanie, Kwartalnik Naukowy”, nr 4/(16), Wydawnictwo Politechniki Śląskiej, Gliwice 2011.
6. Jurek P.: Zarządzanie kompetencjami zawodowymi pracowników w nowoczesnych organizacjach, [w:] Zawadzka A.M. (red.): Psychologia zarządzania w organizacji, Wydawnictwo Naukowe PWN, Warszawa 2010.
7. Loretto W., White P.: Population ageing and older workers: employers' perceptions, attitudes and policies. „Population, space and place”, No. 12, 2006.
8. Maj J.: Zarządzanie różnorodnością w przedsiębiorstwie a społeczna odpowiedzialność przedsiębiorstw, [w:] Karczewski L., Kretek H. (red.): Odpowiedzialny biznes i konsumeryzm wyzwaniem XXI wieku. Tom 1. Wyd. Państwowej Wyższej Szkoły Zawodowej w Raciborzu, Racibórz 2012.
9. Oleksyn T.: Zarządzanie kompetencjami. Teoria i praktyka. Oficyna Ekonomiczna, Kraków 2006.
10. Orczyk J.: Wokół pojęć kwalifikacji i kompetencji. „Zarządzanie zasobami ludzkimi”, nr 3-4, 2009.

## Omówienie

W niniejszym artykule została przeprowadzona analiza poziomu kompetencji nauczycieli województwa opolskiego. Głównym celem publikacji było ustalenie, czy istnieje zależność pomiędzy wiekiem nauczycieli a ich poziomem kompetencji. Podstawą do udzielenia odpowiedzi były badania metodą CAWI, przeprowadzone wśród nauczycieli i dyrektorów szkół. Analiza została przeprowadzona na podstawie samooceny nauczycieli oraz oceny kompetencji nauczycieli poszczególnych grup wiekowych dokonanej przez dyrektorów szkół. W wyniku przeprowadzonych badań ustalono, że według dyrektorów szkół nie ma korelacji pomiędzy wiekiem a poziomem kompetencji nauczycieli. Generalnie można uznać, że

najlepiej oceniani są nauczyciele średnich grup wiekowych. Natomiast w przypadku samooceny najwyższy poziom prezentują najmłodsze grupy wiekowe, najniższy zaś nauczyciele w wieku od 40 do 49 lat, co nie do końca pokrywa się z ocenami dyrektorów szkół.