



Beata Maria Nowak

The Academy of Justice, Warsaw, Poland

e-mail: [beata.nowak@swws.edu.pl](mailto:beata.nowak@swws.edu.pl)

ORCID: <https://orcid.org/0000-0002-9607-4500>

## **Self-Efficacy of Teachers Working in Mainstream Schools – Research Communication**

<http://dx.doi.org/10.12775/PBE.2021.034>

### **Abstract:**

This article presents the results of a study on the self-efficacy of teachers working at mainstream schools and the results of intergroup analyses (mainstream school teachers versus special education teachers), being part of a research project focused on identifying the determinants of teachers' sense of self-efficacy. Intergroup comparisons were made due to assumed differences in the self-efficacy of teachers in mainstream and special schools, resulting from the specific organisation and functioning of the two types of schools and the differentiated actors. The theoretical basis was the social learning theory of A. Bandura. The research was conducted with the use of the "Sense of Efficacy Test" by M. Chomczyńska-Rubacha and K. Rubacha. A total of 801 teachers took part in the study, including 442 teachers from mainstream schools and 359 from special schools (*special education centres – SOWs; youth sociotherapy centres – MOSs; youth education centres – MOWs; prisons – ZKs*). Research analyses have shown that the sense of self-efficacy in teachers from mainstream schools is dependent on their place of residence – increasing along with its size. Cognitive and action resources are determined by the level of education of the mothers of the studied teachers, while motivational resources are determined by the type of school at which they work. A cluster analysis identified two independent groups of teachers – those scoring high and those scoring low in terms of self-efficacy. A model mismatched with the data was obtained, which means that on the basis of sociodemographic variables and other information about teachers (education level of their parents, type of school) it is not possible to predict their assignment

unambiguously to the distinguished groups. In terms of intergroup analyses, a higher sense of self-efficacy and greater motivational and cognitive-action resources were noted in teachers from mainstream schools than in teachers from special schools. The place of work of teachers from both compared groups significantly differentiates their sense of self-efficacy and the level of motivational as well as cognitive-activity resources (teachers employed at a lower secondary school possess more motivational resources, compared to teachers employed in special education centres). In turn, teachers employed at prisons are characterised by a higher level of cognitive-activity resources compared to teachers employed at secondary schools and youth sociotherapeutic and educational centres.

**Keywords:** teacher, sense of self-efficacy, motivational and cognitive-activity resources, mainstream school, special school.

## Introduction

The concept of self-efficacy by A. Bandura (1977; 1986; 1993) concerns a person's belief in their ability to act towards their chosen goal, regardless of the difficulties that arise. Self-efficacy is a mediating factor between goals and actions leading to their achievement (Bussey & Bandura, 1999, p. 691; Pervin & John, 2002, p. 481). It is individually conditioned (Michel et al., 1988; Rubacha, 2000; Oleś, 2003) and constitutes an important element of a person's personal resources, as well as one of the significant predictors of behaviour. Self-efficacy is a determinant of behaviour change through good judgement and the search for effective ways of dealing with problems. It is a psychological mechanism that is a link between a person's knowledge and their behaviour (Bandura, 1986; 2001; Zakrzewski, 1987), exerting a strong influence on thinking, emotions and action. Self-efficacy determines not only behavioural change but also the effectiveness of actions taken. It prompts people to engage in activity in the belief that they can achieve a certain standard. In turn, the conviction of the ineffectiveness in coping with problems blocks activity, triggers anxiety or induces the use of avoidance strategies (Kaplan, 1990, p. 267).

The course of autoregulatory processes (self-observation, evaluation process and reacting to oneself) is influenced by external factors that can change the internal standards of a person, developed by them on the basis of past experiences. The person not only acquires a belief in their own abilities by actually experiencing socially desirable behaviour, but they are able to produce environmental factors on their own, prompting them to undertake a particular activity.

Juxtaposed with a reactive environment, the individual perceives themselves as a successful person and is inclined to exhibit certain behaviours in

the future. In a situation of low environmental reactivity, a person with a high sense of self-efficacy may increase their social activity. With low environmental responsiveness and low self-efficacy, on the other hand, they become helpless, give up activity and withdraw from action, which can generate depressive states (Schwarzer & Fuchs, 1996, after: Juczyński, 2000).

The sense of self-efficacy is formed on the basis of own motivational resources (ability to postpone gratification, self-confidence, developmental motivation, perseverance in action) as well as cognitive-action resources (ability to translate goals into an action programme, resistance to frustration and stress, sense of agency, intrinsic controllability) (Chomczyńska-Rubacha & Rubacha, 2013, pp. 7–8). A high sense of self-efficacy encourages people to choose more ambitious activities, invest more effort in them, and increases the pool of intellectual achievement. The higher it is, the more successful a person expects to be when performing difficult and complex tasks. In situations of failure, they do not give up and renew their efforts to achieve their goal. In turn, the perceived lack of self-efficacy reduces motivational potential to almost zero. Reduced personal commitment means a sense of lack of competence and professional success. The implication of this are the emerging symptoms of professional burnout (Corrigan et al., 1994).

### **Teacher's sense of professional self-efficacy**

In the light of the sense of professional self-efficacy concept derived from the social learning theory, a teacher's sense of professional self-efficacy is that teacher's individual belief that they possess the ability to bring about change in pupils (Ross et al., 1996). A high sense of professional self-efficacy enables the teacher to achieve their intended educational goals (Skaalvik & Skaalvik, 2007). The research of K. Rubacha (2013) showed a high positive correlation between the generalised sense of self-efficacy and the sense of educational self-efficacy in teachers. This result is consistent with that of a study of German and Syrian teachers conducted by R. Schwarzer and S. Hallum (2008). This is also confirmed by the research of M. Salanova, A. Bakker and S.L. Gumbau (2006), who found that as teachers' sense of self-efficacy, social support and adherence to work organisation increase, their task satisfaction and intrinsic motivation increases as well. At this point it should be emphasised that motivation has a regulatory function in the decision-making process (Chelpa, 2005, p. 89), and its strength depends on the hierarchy of goals and the perceived value of individual needs (Juchnowicz, 2014, p. 390). The cited study results contradict

A. Bandura's conjecture regarding the lack of relationship between generalised sense of self-efficacy and sense of self-efficacy in work situations (Kulawska, 2017, p. 240).

The results of other studies indicate that teachers' sense of self-efficacy depends on gender [a higher sense of self-efficacy is present in female teachers compared to male teachers (Greenwood et al., 1990; Raudenbush et al., 1992)] and on the level of teachers' preparation for teaching and the amount of content knowledge and psychological/pedagogical knowledge resources (Housego, 1990; 1992; Hoy & Woolfolk, 1993; Ross, 1994). It is also determined by professional experience (Benz et al., 1992; Gaś, 2002; Kulawska, 2017) and professional development (Coladarci & Fink, 1995; Coladarci & Breton, 1996).

Teachers' sense of self-efficacy increases with their participation in decision-making processes aimed at improving quality of school operations (Moore & Esselman, 1992; Raudenbush et al., 1993) and with experiencing a supportive social climate at school (Hoy & Woolfolk, 1993). The level of sense of self-efficacy also increases when the teacher cooperates with other teachers in solving ongoing teaching and educational problems and when the teacher participates in various forms of in-service training (Rosenholtz, 1989; Ross, 1992). Teachers' confidence in their own abilities and their experience of professional success motivates them to develop professionally (Coladarci, 1992), implement teaching innovations (Allinder, 1994; Coladarci & Fink, 1995), create supportive professional relationships (Morrison et al., 1994) and engage in effective collaboration with pupils' parents (Hoover-Dempsey et al., 1987; Nowak, 2014).

A high sense of teacher self-efficacy also determines pupils' higher school achievements (Ross, 1992; Muijs & Rejnolds, 2001; Caprara et al., 2006; Soodak & Podell, 1996; Leithwood & Jantzi, 2006), which positively affects their attitudes towards learning and school (Miskel et al., 1983). A teacher's sense of self-efficacy is also influenced by the age of their pupils [teachers who work with adolescents have a higher sense of self-efficacy than those, who work with early-education children (Newmann et al., 1989; Raudenbush et al., 1992)] and their activity and engagement (Huberman, 1992; Ross et al., 1996).

The aim of this article is an attempt to identify the determinants of self-efficacy of teachers working at mainstream schools.

## **Research strategy**

The study on self-efficacy in teachers working at mainstream schools was carried out in Poland, in the Masovian Voivodship (Mazowieckie). The selection

of the study sample was based on a purposive–random sampling scheme. First, mainstream schools (primary, lower secondary, vocational/branch schools, high schools and technical schools) were drawn. The operator of the draw was the current list of schools from the Educational Information System. Then, according to a simple random scheme with equal probability of selection, teachers were drawn at random. The selection frame in this case was the list of teachers in the drawn schools. The study included only those respondents who were employed full-time in the drawn establishment. A total of 442 teachers working in mainstream schools participated in the study. Among the total number of people studied, women constituted the vast majority (76.4%). Teachers aged 31–40 years old (34%) and 41–50 years old (30.0%) were the most represented. A relatively high proportion of teachers of mature age, over 50 years old (20%), was also present. Among the respondents, almost half of the teachers with quite a lot of professional experience (11–25 years of work) were recorded: 45.6%. More than 1/3 of the respondents are people with little work experience (up to 10 years). The longest-serving teachers (> 25 years' seniority) accounted for 18.8% of all respondents. Regardless of the place of employment, the vast majority of the teachers studied were urban residents (76.8%). The largest groups of respondents were teachers employed at high schools (39.8%) and at primary schools (33.9%). Technical (13.6%) and vocational/branch schools (12.7%) were less represented. For more than half of the respondents, a consistency between their level of education and that of their parents (64%) was recorded. Two dominant levels of education of the parents of the teachers studied were also identified: secondary (mother – 47.3% and father – 49.5%) and higher (mother – 37.1% and father – 31.4%).

As part of the study aimed at identifying the determinants of teachers' sense of self-efficacy, the material obtained from teachers working in special schools was also statistically analysed, based on which intergroup comparative analyses were conducted: teachers from mainstream schools *versus* teachers from special schools. The results of these analyses were found to be useful in presenting the main issue due to the assumed differences in self-efficacy of teachers at mainstream and special schools, resulting from the specific nature of the organisation and functioning of both types of schools and the differentiated entities involved, (special schools are attended exclusively by pupils with special educational needs, who possess a statement on the need for special education and are at risk of social maladjustment and socially maladjusted). Due to the large volume of research material, the results regarding the study of special education teachers were published earlier (Nowak, 2019)]. However, for the sake of clar-

ity and comprehensibility of description, it was considered appropriate to present in this article an abbreviated characterisation of the special school teachers studied. The study included special schools operating in: *Youth Sociotherapy Centres (MOSs)* for young people at risk of social maladjustment; *Youth Education Centres (MOWs)* for socially maladjusted young people; *Special Education Centres (SOW)* for children who cannot attend school at their place of residence due to a disability and schools located in *correctional institutions (ZK)*<sup>1</sup>. It should be noted that for this group of teachers, the study sample selection process was identical to that pertaining to teachers from mainstream schools. 359 people took part in the study. Women accounted for nearly two-thirds of the total number of respondents. The largest group were teachers employed in SOWs (33.4%), followed by MOWs (29.2%) and MOSs (29%). Persons studying at correctional institutions (ZK) represented 8.4% of the total number of persons studied. More than half of the respondents were young and middle-aged teachers with relatively little seniority (up to 10 years). Experienced teachers, located in the category of 11 to 25 years of professional experience, accounted for 40.3% of the respondents, while a small percentage of teachers were located in the category of more than 25 years of professional experience.

The study of teachers working at both types of schools was conducted using a standardised research tool – *the Sense of Self-Efficacy Test (TPS)* by M. Chomczyńska-Rubacha and K. Rubacha (2013). It is a self-report tool with a four-point scale containing 17 statements describing different strategies of human action. The TPS test consists of two subscales characterising cognitive--

---

<sup>1</sup> An integral element of the structure of Polish centres for children and young people at risk of social maladjustment and socially maladjusted is a primary or secondary special school. It is an institution dealing with care, upbringing, education and, depending on the purpose of a given centre, rehabilitation (revalidation), re-socialisation of children, disabled youth with disturbed behaviour [Regulation of the Minister of National Education of 9 August 2017 on the conditions of organising education, upbringing and care for children and youth with disabilities, social maladjustment and at risk of social maladjustment (Journal of Laws of 24 August 2017, item 1578), § 2. 1. (item 5, 6, 8)]. Persons eligible for admission to special schools are those under 18 years of age who are obliged to fulfil their compulsory education and schooling obligations under the Act on the Educational System (obligatory); who have applied for education or its continuation in a specific type of school and for whom — in an individual influence curriculum — the need for education has been determined at the request of the penitentiary department of a penal institution [Regulation of the Minister of Justice of 13 February 2004 on the detailed principles and procedures for conducting education at penal institutions (Journal of Laws no. 37 item 337 as amended and Instruction No. 5 of the Director General of the Prison Service on the detailed procedure for organising teaching at schools and course training at penal institutions and penal institutions of 25 November 2008].

action resources and motivational resources. Motivational resources consist of developmental motivation and persistence, self-confidence and the ability to defer gratification. In turn cognitive-action resources include: sense of empowerment, intrinsic controllability, resistance to frustration and stress, ability to translate goals into an action programme. Scores are calculated by summing the response weights (according to a key – in part of the items the scale is inverted). The summed values (raw scores) are compared to the standard ten norms in the workbook.

## **Study results**

### **1. Self-efficacy of teachers working at mainstream schools**

- **self-efficacy and sociodemographic variables**

The results of the U. Mann-Whitney test indicate that there is no relationship between gender and the sense of self-efficacy of the teachers studied ( $Z = 1.10$ ;  $p > 0.05$ ), as well as with motivational ( $Z = 0.73$ ;  $p > 0.05$ ) and cognitive-activity resources ( $Z = 1.33$ ;  $p > 0.05$ ). However, this result is not consistent with the findings of other Authors (Greenwood et al., 1990; Raudenbush et al., 1992) and with the result of the study of teachers from special schools (Nowak, 2019).

On the other hand, correlation analysis using rho-Spearman showed no relationship between the age and seniority of the studied teachers and their sense of self-efficacy and cognitive-activity and motivational resources. Also, this result contradicts the study findings of other Authors (Benz et al., 1992; Gaś, 2002; Kulawska, 2017).

However, significant correlations were noted with respect to the size of the place of residence. It was found that the sense of self-efficacy of the studied teachers increased along with its size, but only in relation to their cognitive and action resources (two-way correlation, significant at the 0.05 level).

- **teachers' sense of self-efficacy and type of school**

Univariate analysis of variance showed no relationship between the type of school where teachers were employed and their sense of self-efficacy [ $F(3,438) = 1.67$ ;  $p > 0.05$ ]. It was only noted in relation to motivational resources [ $F(3,438) = 2.87$ ;  $p < 0.05$ ]. However, careful post-hoc analysis with Scheffe's correction showed that primary school teachers scored significantly lower on this subscale compared to teachers teaching at other types of schools. This result is consistent with the findings of other Authors (Newmann et al., 1989; Raudenbush et al., 1992).

- **parents' level of education and self-efficacy of the studied teachers**

Statistically significant associations were observed between the subjects' sense of self-efficacy and their mothers' level of education. It turned out that the cognitive-activity resources possessed by the studied teachers increased along with the level of education of their mothers (two-way correlation significant at the 0.05 level). This result prompts more in-depth research on this issue, especially since no significant relationship was observed with respect to motivational resources. There were also no significant correlations between the educational level of fathers and the sense of self-efficacy of the studied teachers, suggesting a continuation of research in this regard.

It is worth noting that significant correlations are also not found in the consistency of the educational levels of the fathers and mothers of the studied teachers. The U. Mann-Whitney test analysis showed that there were no differences both in the level of self-efficacy and within the two subscales between the two groups of teachers studied – those whose parents' level of education was consistent and those whose parents had education at different levels.

- **results of cluster analysis**

With the use of the k-means cluster analysis, it was examined whether at least two independent groups (clusters) could be formed within the two subscales of self-efficacy (motivational resources and cognitive-activity resources). Before commencing the analyses, variables were standardised to facilitate interpretation of the results. The analysis carried out gave rise to the identification of two independent groups characterised by good cohesion and distinctiveness. However, 62 teachers were excluded from further analysis because of the problem of clearly assigning them to one of the identified groups.

Teachers ( $n = 221$ ) who scored high on the resource subscales (Silhouette = 0.67) were assigned to the first group — cluster 1 (+). In contrast, cluster 2 (–) included teachers ( $n = 159$ ) who were characterised by low scores on both scales analysed (Silhouette = 0.71).

Next, chi-square analysis was used to examine whether classification into groups (clusters) depended on the gender, age, seniority, size of the place of residence, type of school and educational level of the studied teachers' parents. There was no relationship between group assignment and gender of the studied teachers ( $\chi^2(1) = 0.92$ ;  $p > 0.05$ ), which means that there is no basis to conclude that group assignment was related to the gender of the subject. However, a significant relationship was noted between the placement of individuals in a group and their age ( $\chi^2(3) = 8.47$ ;  $p < 0.05$ ). Teachers aged 41–50 were more likely to be assigned to cluster 1 (+). For the oldest teachers, the opposite rela-



tionship was observed, while for the young teachers, no relationship was found between age and classification into groups (clusters).

The assignment of teachers to one of the distinguished groups also did not depend significantly on their seniority ( $\chi^2(6) = 6.48$ ;  $p > 0.05$ ), the size of their place of residence ( $\chi^2(4) = 2.34$ ;  $p > 0.05$ ) and the type of school at which they were employed ( $\chi^2(3) = 4.42$ ;  $p > 0.05$ ). There was also no correlation detected between the assignment of the studied teachers to groups and the educational level of their mothers and fathers, or the consistency of their parents' educational level ( $\chi^2(1) = 1.44$ ;  $p > 0.05$ ).

In the subsequent phase of the study, an attempt was made to explain the assignment to clusters using logistic regression analysis. A model mismatched with the data was obtained ( $\chi^2(1) = 1.03$ ;  $p > 0.05$ ), which means that on the basis of sociodemographic variables and other information about teachers (education level of their parents, type of school) it is not possible to predict unambiguously their assignment to the distinguished clusters (groups).

## **2. Intergroup differences in terms of the sense of self-efficacy – teachers working at mainstream schools *versus* teachers from special schools**

The result of the t-test for independent samples indicates that there were no intergroup differences in the levels of self-efficacy and motivational, and cognitive-activity resources. However, it is worth noting that significant differences between the studied groups of teachers were observed within the distinguished clusters ( $\chi^2(1)=6.96$ ;  $p<0.01$ ). It turned out that teachers working at special schools were more often classified in cluster 2 (-), i.e. the group with low scores. In contrast, the reverse relationship was observed among teachers working at mainstream schools; they were more likely to have high scores, which meant that they were more often assigned to cluster 1 (+).

- **the moderating role of the group in the relationship between the characteristics of the studied teachers and classification into clusters**

Significant group moderation was obtained for the size of the place of residence ( $\chi^2(3) = 22.32$ ;  $p < 0.001$ ). Good model fit was also confirmed by the Hosmer and Lemeshow test ( $\chi^2(8) = 6.68$ ;  $p > 0.05$ ). The convergence between the results obtained and the model predictions is 59.3%. The probability of being assigned to cluster 1 (+) increases by nearly 65% when the studied teachers are employed in mainstream schools ( $p < 0.01$ ) and increases with the size of the place of residence ( $p < 0.01$ ). Conditional effects analysis, on the other hand, shows that the relationship is only observed in the group of teachers employed

in special schools ( $p < 0.001$ ). This is because it turned out that the chance of being assigned to cluster 1 (+) increases with the size of the place of residence.

- **school type and teachers' sense of self-efficacy**

A one-way analysis of variance was used to examine whether the school type (mainstream *versus* special) significantly differentiates teachers' sense of self-efficacy and the level of their motivational and cognitive-activity resources.

1. With regard to the level of sense of self-efficacy, only **within-group differences** were noted within the frames of special education providers ( $F(7,793) = 3.88$ ;  $p < 0.001$ ). A detailed analysis using a post-hoc test with Scheffe's correction showed that teachers employed in correctional institutions (ZK) scored higher than teachers working in special educational centres (SOWs). Other differences were found to be statistically insignificant.
2. Significant **intergroup differences** were obtained on the motivational resources subscale ( $F(7,793) = 4.15$ ;  $p < 0.001$ ). Teachers employed at lower secondary schools (mainstream school) scored higher in this area, compared to teachers employed in SOWs (special school). Other differences were found to be statistically insignificant. Intergroup differences also emerged for cognitive-activity resources ( $F(7,793) = 3.89$ ;  $p < 0.001$ ). Teachers employed in correctional institutions obtained significantly higher results compared to teachers employed at secondary schools and MOWs and MOSs (inference based on post-hoc test with Scheffe's correction). The differences between the remaining establishments were not statistically significant.

## Conclusion

1. Teachers in mainstream schools living and working in large cities have higher levels of self-efficacy and cognitive and action resources than teachers from smaller communities. They show better ability to translate goals into an action programme, higher levels of resilience to frustration and stress, a sense of agency and intrinsic controllability. They also have greater access to training provision and the opportunity to benefit from various forms of in-service training and expository type lessons. They are also likely to be more open to implementing innovations, as may be evidenced among other things by the results of the previously cited studies (Allinder, 1994; Coladarci & Fink, 1995).

2. Teachers working at primary schools have fewer motivational resources than teachers in other school types. This state of affairs leads to a recommendation to prepare a professional training offer for teachers employed at primary schools, inter alia, in the field of shaping the skills of deferring gratification, building self-confidence and perseverance in action.
3. As the educational level of mothers increases, the cognitive and action resources of those in the teaching profession increase. However, teachers' sense of self-efficacy is not dependent on the consistency of their parents' education.
4. The sense of self-efficacy is felt most strongly by older and professionally experienced teachers (age category 41–50 years). However, as they get older, the level of their sense of empowerment decreases significantly. Perhaps this is linked to stunted professional development, deteriorating health or the burnout syndrome. However, this issue requires separate empirical penetration.
5. Teachers from mainstream schools have higher levels of self-efficacy and greater motivational and cognitive-action resources than teachers from special schools. It can be assumed that this state of affairs is related to the subject of didactic and educational interactions. Young people studying at special schools are socially maladjusted. Pupils come from deeply dysfunctional, pathological or educationally inefficient families. As a result, they tend to be educationally underdeveloped and affected by a range of cross-cutting disorders, requiring psychological, pedagogical and sometimes remedial therapies. This makes it difficult for teachers to achieve visible and lasting learning outcomes with such pupils. This puts teachers working at special schools at greater risk of developing the burnout syndrome than teachers in mainstream schools.
6. The place of work of the teachers from both compared groups significantly differentiates their sense of self-efficacy and the size of their motivational and cognitive-activity resources. Teachers employed in correctional institutions have a higher level of self-efficacy than their colleagues working in SOWs. This is probably related to the intellectual level of the impacted subjects and the difficulties in making lasting changes in their behaviour and in achieving the required educational outcomes. However, teachers employed at lower secondary schools have greater motivational resources compared to teachers employed in SOWs. In turn, teachers employed in correctional institutions are char-

acterised by a higher level of cognitive-activity resources compared to teachers employed at secondary schools and MOWs, and MOSs. It can be assumed that this is determined by the age of the pupils, their level of discipline and the degree of openness of the educational establishment. However, verification of this thesis requires separate empirical studies.

## References

- Allinder, R.M. (1994). The Relationship Between Self-Efficacy and the Instructional Practices of Special Education Teachers and Consultants. *Teacher Education and Special Education*, 17, 86–95, doi: 10.1177/088840649401700203.
- Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review*, 84, 191–215, doi: 10.1037/0033-295X.84.2.191.
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs: Prentice-Hall.
- Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist*, 2, 117–148, doi: 10.1207/s15326985ep2802\_3.
- Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*, 52, 1–26, doi: 10.1146/annurev.psych.52.1.1.
- Benz, C., Bradley, L., Alderman, M., & Flowers, M. (1992). Personal Teaching Self-Efficacy: Developmental Relationships in Education. *Journal of Educational Research*, 5, 274–286, doi: 10.1080/00220671.1992.9941127.
- Bussey, K., & Bandura, A. (1999). Social Cognitive Theory of Gender Development and Differentiation. *Psychological Review*, 106(4), 676–713, doi: 10.1037/0033-295X.106.4.676.
- Caprara, G.V., Barbaranelli, C., Steca, P., & Malone, P.S. (2006). Teachers' Self-Efficacy Beliefs as Determinants of Job Satisfaction and Students' Academic Achievement: A Study at the School Level. *Journal of School Psychology*, 44, 473–490, doi: 10.1016/j.jsp.2006.09.001.
- Chęłpa, S. (2005). Hasło: Motywacja [Keyword: Motivation]. In: T. Listwan (Ed.), *Słownik zarządzania kadrami* [Dictionary of Personnel Management] (p. 89). Warszawa: Wydawnictwo C.H. Beck.
- Chomczyńska-Rubacha, M., & Rubacha, K. (2013). Test Poczucia Skuteczności [Sense of Self-Efficacy Test]. Toruń: Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika.
- Coladarci, T. (1992). Teachers' Sense of Self-Efficacy and Commitment to Teaching. *Journal of Experimental Education*, 60, 323–337, doi: 10.1080/00220973.1992.9943869.

- Coladarci, T., & Breton, B. (1996). Teacher Self-Efficacy, Supervision, and the Special Education Resource-Room Teacher. *Journal of Educational Research*, 90(4), 230–239, doi: 10.1080/00220671.1997.10544577.
- Coladarci, T., & Fink, D.R. (1995). Correlations Among Measures of Teacher Self-Efficacy: Are they Measuring the Same Thing? Paper Presented at the 1995 Meeting of the American Educational Research Association, San Francisco.
- Corrigan, P.W., Holmes, P.E., Luchins, D., Buican, B., Basit, A., & Parks, J.J. (1994). Staff Burnout in Psychiatric Hospital: A Cross-Lagged Panel Design. *Journal of Organizational Behavior*, 15, 65–74, doi: 10.1002/job.4030150107.
- Gaś, Z. (2002). Poczucie skuteczności profesjonalnej nauczycieli o różnym stażu w zawodzie [Teachers' Sense of Professional Self-Efficacy with Different Levels of Seniority in the Profession]. *Przegląd Psychologiczny*, 45(1), 57–74.
- Greenwood, G., Olejnik, S., & Parkay, F. (1990). Relationships Between Four Teacher Self-Efficacy Belief Patterns and Selected Teacher Characteristics. *Journal of Research and Development Education*, 23, 102–107.
- Hoover-Dempsey, K., Bassler, O., & Brissie, J. (1987). Parent Involvement: Contributions of Teacher Self-Efficacy, School Socioeconomic Status, and Other School Characteristics. *American Educational Research Journal*, 24(3), 417–435, doi: 417-435. 10.3102/00028312024003417.
- Housego, B. (1990). A Comparative Study of Student Teachers' Feeling of Preparedness to Teach. *Alberta Journal of Educational Research*, 36(3), 223–239.
- Housego, B. (1992). Monitoring Student Teachers' Feeling of Preparedness to Teach, Personal Teaching Self-Efficacy, and Teaching Self-Efficacy in a New Secondary Teacher Education Program. *Alberta Journal of Educational Research*, 38(1), 49–64.
- Hoy, W.K., & Woolfolk, A.E. (1993). Teachers' Sense of Self-Efficacy and the Organizational Health of Schools. *The Elementary School Journal*, 93(4), 355–372, doi: 10.1086/461729.
- Huberman, M. (1992). Teacher Development and Instructional Mastery. In: A. Hargreaves, & M. Fullan (Eds.), *Understanding Teacher Development* (p. 122–142). New York: Teachers College Press.
- Juchnowicz, M. (2014). *Zarządzanie kapitałem ludzkim. Procesy – narzędzia – aplikacje* [Managing Human Capital. Processes – Tools – Applications]. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Juczyński, Z. (2000). Poczucie własnej skuteczności – teoria i pomiar [Sense of Self-Efficacy — Theory and Measurement]. *Acta Universitatis Lodziensis. Folia Psychologica*, 4, 11–23.

- Kaplan, P.S. (1990). *Educational Psychology for Tomorrow's Teacher*. St. Paul: West Pub. Co.
- Kulawska, E. (2017). Poczucie własnej skuteczności nauczycieli edukacji wczesnoszkolnej [Early Childhood Education Teachers' Sense of Self-Efficacy]. *Forum Pedagogiczne*, 7(2), 237–252, doi: 10.21697/fp.2017.2.17.
- Leithwood, K., & Jantzi, D. (2006). Transformational School Leadership for Large-Scale Reform: Effects on Students, Teachers, and their Classroom Practices. *School Effectiveness and School Improvement*, 17(2), 201–227, doi: 10.1080/09243450600565829.
- Michel, W., Schoda, Y., & Peake, P. (1988). The Nature Adolescent Competences Predicted by Preschool Delay of Gratification. *Journal of Personality and Social Psychology*, 54, 687–696, doi: 10.1037//0022-3514.54.4.687.
- Miskel, C., McDonald, D., & Bloom, S. (1983). Structural and Expectancy Linkages Within Schools and Organizational Effectiveness. *Educational Administration Quarterly*, 19, 49–82.
- Moore, W., & Esselman, M. (1992). Teacher Self-Efficacy, Empowerment, and a Focussed Instructional Climate: Does Student Achievement Benefit? Paper Presented at the Annual Meeting of the American Educational Research Association. San Francisco.
- Morrison, G.M., Walker, D., Wakefield, P., & Solberg, S. (1994). Teacher Preferences for Collaborative Relationships: Relationship to Self-Efficacy for Teaching in Prevention-Related Domains. *Psychology in the Schools*, 31(3), 221–231, doi: 10.1002/1520-6807(199407)31:3<221::AID-PITS2310310307>3.0.CO;2-E.
- Muijs, R.D., & Reynolds, D. (2001). Teachers' Beliefs and Behaviors: What Really Matters? *Journal of Classroom Interaction*, 37(3), 3–15.
- Newmann, F., Rutter, R., & Smith, M. (1989). Organizational Factors that Affect School Sense of Self-Efficacy, Community, and Expectations. *Sociology of Education*, 62, 221–238.
- Nowak, B.M. (2014). W sieci wpływów społecznych. Rodzice i szkoła: wzajemność czy konfrontacja? [In the Web of Social Influence. Parents and School: Reciprocity or Confrontation?]. In: B.M. Nowak, & J. Krawczyk (Eds.), *Problemy i wyzwania współczesnej pedagogiki szkolnej* [Problems and Challenges of Contemporary School Pedagogy] (pp. 11–37). Warszawa: Wydawnictwo Pedagogium.
- Nowak, B.M. (2019). The Sense of Self-Efficacy of Teachers Working in Special Schools – a Research Communiqué. *International Journal of Learning, Teaching and Educational Research*, 18(10), 161–174, doi: 10.26803/ijlter.18.10.10.
- Oleś, P. (2003). *Wprowadzenie do psychologii osobowości* [Introduction to the Psychology of Personality]. Warszawa: Scholar.

- Pervin, L.A., & John, O.P. (2002). *Osobowość. Teoria i badania* [Personality. Theory and Research], rev. 8. Kraków: Wydawnictwo UJ.
- Raudenbush, S., Rowan, B., & Cheong, Y. (1993). Higher Order Instructional Goals in Secondary Schools: Class, Teacher, and School Influences. *American Educational Research Journal*, 30(3), 523–553, doi: 10.3102/00028312030003523.
- Rosenholtz, S. (1989). *Teachers' Workplace: The Social Organization of Schools*. New York: Longman.
- Ross, J.A. (1992). Teacher Self-Efficacy and the Effect of Coaching on Student Achievement. *Canadian Journal of Education*, 17(1), 51–65, doi: 10.2307/1495395.
- Ross, J.A. (1994). The Impact of an In-Service to Promote Cooperative Learning on the Stability of Teacher Self-Efficacy. *Teaching and Teacher Education*, 10(4), 381–394, doi: 10.1016/0742-051X(94)90020-5.
- Ross, J.A., Cousins, J.B., & Gadhia, T. (1996). Within-teacher Predictors of Teacher Self-Efficacy. *Teaching and Teacher Education*, 12(4), 385–400.
- Rubacha, K. (2000). *Pełnienie roli nauczyciela a realizacja zadań rozwojowych w okresie wczesnej dorosłości* [Performing the Role of a Teacher and the Fulfillment of Developmental Tasks in Early Adulthood]. Toruń: Wydawnictwo Uniwersytetu Mikołaja Kopernika.
- Rubacha, K. (2013). Uogólnione poczucie skuteczności a poczucie skuteczności wychowawczej rodziców i nauczycieli. Hipoteza sytuacyjnej zmienności [Generalized Sense of Efficacy Versus Parents' and Teachers' Sense of Educational Efficacy. The Situational Variability Hypothesis]. *Studia Edukacyjne*, 25, 75–83, doi: 10.12775/PBE.2013.007.
- Salanova, M., Bakker, A., & Gumbau, S.L. (2006). Flow at Work: Evidence for an Upward Spiral of Personal and Organizational Resources. *Journal of Happiness Studies*, 7(1), 1–22, February, doi: 10.1007/s10902-005-8854-8.
- Schwarzer, R., & Hallum, S. (2008). Perceived Teacher Self-Efficacy as a Predictor of Job Stress and Burnout: Mediation Analysis. *Applied Psychology*, 57, 152–171, doi: 10.1111/j.1464-0597.2008.00359.
- Skaalvik, E.M., & Skaalvik, S. (2007). Dimensions of Teacher Self-Efficacy and Relations With Strain Factors, Perceived Collective Teacher Efficacy, and Teacher Burnout. *Journal of Educational Psychology*, 99(3), 611–625, doi: 10.1037/0022-0663.99.3.611.
- Soodak, L.C., & Podell, D.M. (1996). Teacher Self-Efficacy: Toward the Understanding of a Multifaceted Construct. *Teaching and Teacher Education*, 12, 401–411.
- Zakrzewski, J. (1987). Poczucie skuteczności a samoregulacja zachowania [Sense of Efficacy Versus Self-Regulated Behaviour]. *Przegląd Psychologiczny*, 30(3), 661–677.