

# The relationship between resistance to change and Romanian teachers' attitude towards continuing education: the moderating role of conscientiousness

Ramona Paloş & Simona Alexandra Gunaru

To cite this article: Ramona Paloş & Simona Alexandra Gunaru (2017) The relationship between resistance to change and Romanian teachers' attitude towards continuing education: the moderating role of conscientiousness, Journal of Education for Teaching, 43:4, 458-473, DOI: [10.1080/02607476.2017.1297043](https://doi.org/10.1080/02607476.2017.1297043)

To link to this article: <http://dx.doi.org/10.1080/02607476.2017.1297043>



Published online: 05 Mar 2017.



Submit your article to this journal [↗](#)



Article views: 63



View related articles [↗](#)



View Crossmark data [↗](#)



# The relationship between resistance to change and Romanian teachers' attitude towards continuing education: the moderating role of conscientiousness

Ramona Paloş<sup>a</sup> and Simona Alexandra Gunaru<sup>b</sup>

<sup>a</sup>Department of Psychology, West University of Timisoara, Timișoara, Romania; <sup>b</sup>Centre for Inclusive Education, "Paul Popescu Neveanu", Timișoara, Romania

## ABSTRACT

Previous research highlights that personal factors are more important than contextual factors in explaining teachers' behaviours in relation to learning participation. The present study explores the relationship between two personal factors (dispositional resistance to change and teachers' attitude towards continuing education) and the moderating role of conscientiousness on this relationship. The data have been gathered from 142 teachers from the field of special and public education, using three questionnaires: Revised Adult Attitudes Towards Continuing Education Scale, Resistance to Change Scale and IPIP-50. The main results show that, firstly, conscientiousness has a moderating role on the relationship between dispositional resistance to change and enjoyment of learning, and secondly, teachers in special education consider their continuing education as being more important than teachers in the regular system. Knowing this, we can predict and increase teachers' participation in continuing education and can improve training design.

## ARTICLE HISTORY

Received 6 May 2016

Accepted 31 January 2017

## KEYWORDS

Attitude towards continuing teachers' education; dispositional resistance to change; conscientiousness

## Introduction

Nowadays, continuing teachers' education has become more than ever a necessity. The many changes within the educational environment (eg increased diversity of students, instructional technology with its impact on teaching and learning), have called for a rethinking of not only how things are done, but also upon opportunities and methods for training teachers (Seifert and Sutton 2009). Because many teachers need to be stimulated into discovering all that is new in their field (Torff, Sessions, and Byrnes 2005), at least three components of a comprehensive continuing education programme for teachers are important: (1) updating skills and knowledge that teacher already has; (2) adding new skills and knowledge as the profession and the teacher develop; and (3) general development of the professional teacher as a person (Scott 1976, 77). Usually, the second component of the continuing professional education predominates (Scott 1976). Sometimes, courses and training respond to both professional and personal development needs, helping teachers to deal with specific situations encountered in their classroom activity. Therefore, both professional and personal

education are forms of continuing education (Hopkins and Holborn 1983), and this is the reason why the broad term 'continuing education' will be used in this paper.

Teachers' participation in continuing education is promoted or inhibited by a large variety of personal and contextual factors. For instance, Kwakman (2003) suggested that task (eg job variety, autonomy, the pressure of work) and work environment components (eg management or colleagues support) influence teachers' participation, but their effect is mediated by personal characteristics (eg attitudes, appraisal of meaningfulness). Bakkenes, Vermunt, and Wubbels (2010) and Vermunt and Endedijk (2011) argued that personal factors such as learning convictions, professional identity or personality traits (eg resistance to change, conscientiousness) are more important than contextual factors (eg learning environment or organisational climate) in explaining teachers' beliefs and behaviour in relation to their learning participation. Regarding personal variables, if one wants to explain and predict teachers' participation in continuing professional education, one should take into account at least three of them: attitude towards continuing education, resistance to change and conscientiousness. A teacher's attitude towards continuing education can help to understand how they perceive and interpret the importance of continuing learning (Blunt and Yang 2002), and what motivates them to be involved in it. This participation can be voluntary, when teachers want to improve their development and choose to follow various courses, or can be imposed, when they have to acquire professional credits from recommended courses. Their decision to participate or not and the way they react or deal with the consequences of these changes is influenced by their level of resistance to change. For example, Oreg (2006) showed that it is unlikely that highly resistant-to-change-individuals will voluntarily initiate and incorporate changes in their life, and if the changes are imposed, it is highly probable they will experience negative emotional reactions linked to those changes. Professional development involves continuous learning too (Maskit 2011), and the personal variable which may make a difference between teachers, and whether or not they choose to continue to allocate effort to learning and performing is the level of conscientiousness (Perlow and Kopp 2004).

However, despite the studies which emphasise the way these variables separately explain and influence teachers' decision to participate in continuing education (Oreg 2006; Maskit 2011; Opfer, Pedder, and Lavicza 2011; Lines et al. 2015), little is known about the interaction between them. Consequently, this study aims to fill this gap. It focuses on how these variables could act as personal antecedents for teachers' decisions to be involved in continuing education and also on how the relationships between them work. Therefore, the main objective of the research was to explore the relationship between two personal factors (dispositional resistance to change and teachers' attitude towards their continuing education) and to see if the conscientiousness dimension of personality moderates this relationship. Also, because in the case of teachers from special education the efficiency of the class is influenced by their continuing training (Feng and Sass 2013), an additional aim was to see if there were differences regarding their attitude towards continuing education between teachers who work in the regular system and those who work in special education.

## Theoretical background

### *Teachers' professional development in Romania*

Teachers' professional development is a continuous learning process (Opfer, Pedder, and Lavicza 2011) and involves all those experiences that teachers encounter during their career

(eg teaching activities, training, professional meeting, self-study) (Maskit 2011). In Romania, professional development for teachers has two stages: initial and continuing professional development. Continuing professional development is considered as a professional duty, and participation is a prerequisite for career advancement and salary increases (LNE 2011; EACEA 2013). Thus, at five-year intervals, teachers have to acquire at least 90 transferable professional credits through (Jigău 2009): ongoing improvement (eg methodical, scientific, psychological and pedagogical activities), advancement through specific pedagogical exams, periodic training once every five years and professional conversion programmes (acquiring the right to teach other subjects). In the special education area, there is the same system of continuing professional development as in the regular education system. Continuing professional development of these teachers is mainly done through special psycho-pedagogy courses, related to the teacher's post. Some of these courses are organised by Teachers' House (or the inspectorate), but most of them are set up by non-government organisations that are actively involved in areas related to educating children with special needs (OECD 2007).

According to previous research, there are no major problems regarding teachers' continuing professional development in the public education area (Feng 2010). In the area of special education, on the other hand, research indicates a deficit both regarding the number of teachers working in special and inclusive education and in the level of the quality of their instruction, when focusing on teachers who are certified for such positions (Feng and Sass 2013). Moreover, in the case of public education the efficiency of the teachers is not related to the type of education they previously received, whereas in the case of special education teachers, if they benefited from consistent-specific training, class efficiency is substantially higher and is reflected in pupils' performances (Feng and Sass 2013). The teachers' need to acquire useful skills for the classroom and their desire to develop useful abilities on a personal level are the factors with the greatest impact for stimulating them to continue training and to be innovative in the schools they teach in (Gorozidis and Papaioannou 2014).

The number of Romanian teachers involved in continuing professional education and the type of courses offered by different institutions or agencies are presented in many statistical reports (Jigău 2009; EACEA 2013). Also, there are studies which identify the main reasons for participation in continuing education. For example, national research on 1126 teachers showed that they were involved in continuing education (Jigău 2009) because of: (1) the need to acquire useful skills for the classroom (ie professional development, 75.1%); (2) the desire to develop useful abilities on a personal level (ie personal development, 60.2%); (3) developing a personal portfolio of training activities (ie professional development, 49.5%); and (4) obtaining the mandatory credits required by legislation (ie professional development, 28.2%). Most of these reasons underline contextual variables, but little is shown about personal factors, about why teachers follow mainly compulsory courses, or what the causes of their decision and low participation in continuing education are.

### ***Personal variables with an impact on participation in continuing teachers' education***

#### ***Attitude towards continuing education***

Considered as an essential aspect of the decision to participate in continuing professional education (Yang, Blunt, and Butler 1994), the attitude towards continuing education

comprises three dimensions: one affective (ie the enjoyment of learning), and two cognitive dimensions (ie perceived importance and intrinsic value of education). The affective dimension influences behaviour directly, whereas perceived importance and intrinsic value of education have an indirect effect on participation behaviour, through the affect factor. Also, the belief in the importance of training is determined by the value that teachers attach to this training (Blunt and Yang 2002). Moreover, enjoyment of learning acts as a motivator if the person has the feeling that they can control the process and its outcomes, and also if they perceive those learning experiences as having value for their professional development (Hagenauer and Hascher 2010). In addition, teachers' beliefs, practices and experiential context influence their engagement in any form of professional change (Opfer, Pedder, and Lavicza 2011).

Although the starting point in a professional development is motivation, the personal relevance of the content and the measure in which teachers find their needs, values and perspectives in that programme are the key ingredient of a positive attitude towards development (Wlodkowski 2003). Likewise, the value they attribute to education and the perceived importance of learning activities have a significant influence upon participating behaviour (Blunt and Yang 2002). According to teachers, what motivates them to become involved in formal and informal learning activities is their love of learning and interest in their profession, their initiative and commitment to continuing professional development, self-efficacy or a nurturing and an outgoing personality (Lohman 2006). Therefore, a positive attitude coupled with a favourable self-evaluation, can lead to stimulating motivation to engage in new learning activities (Ellis 1989, as quoted in Wlodkowski 1998).

### *Resistance to change*

Resistance to change reflects the way an individual thinks about change, experiences change on the emotional and psychological level and visibly manifests this resistance to change (Lines et al. 2015). According to Oreg (2003), dispositional resistance to change embodies these individual differences and reflects people's inherent tendency to resist change. It is a multidimensional construct which comprises four dimensions expressing the behavioural, cognitive and affective aspects of resistance to change, respectively: routine seeking (the person's preference for those stable and predictable tasks, activities and environments); cognitive rigidity (their inflexibility in thinking and difficulties in accepting alternative ideas, solutions and perspectives); short-term focus (the focusing on the deficiencies and the discomfort brought on by change and not on the long-term benefits that it implies); and emotional reaction (their feeling of stress, anxiety and lack of enthusiasm when change is imposed (Oreg 2003; Arciniega and González 2009; Battistelli, Montani, and Odoardi 2013). Hence, dispositional resistance to change influences the way people approach change and their reactions to change in the variety of situations they are confronted with, within voluntary and imposed circumstances (Oreg et al. 2008).

Concerning teachers' professional education, previous research showed that resistance to change could be determined by many variables, such as teachers' personal orientation to change and their readiness to accept change (Reio 2005); gender, age or the stage of their career (Hargreaves 2005); the process of training itself (eg the content of the programmes, the methods used to deliver the content or the subject specialty (Reio 2005; Bronkhorst et al. 2014). Teachers' continuing education is somewhat voluntary (in that they have the possibility

of choosing certain courses) but it is also mandatory, because of the necessity of accumulating a particular number of credits over a certain period of time. Previous studies suggest that if individuals with high dispositional resistance to change can autonomously decide how to carry out their job or to receive feedback from their tasks, they will engage in change-orientated behaviour (Battistelli, Montani, and Odoardi 2013). Also, individuals' occupational interests are influenced by their dispositional inclination to resist change, and a fit between their orientation towards change and the degree of change in their occupational environment will be reflected in a variety of work-related outcomes (Oreg et al. 2009). Those who are dispositionally resistant to changes are more likely to form negative attitudes towards specific changes they encounter and are less likely to initiate changes voluntarily in their lives (Oreg et al. 2008).

### **Conscientiousness**

Personality is considered as an assembly of relatively stable traits which explain an individual's disposition to particular patterns of behaviour, cognitions and emotions (Bidjerano and Dai 2007, 70). It can be described through five factors (Costa and McCrae 1992): neuroticism or emotional instability, extraversion, openness to experience, agreeableness and conscientiousness. Among these factors, conscientiousness is considered the most consistent predictor across all situations (eg job satisfaction, work performance (Linden, Nijenhuis, and Bakker 2010; Arora and Rangnekar 2016). People who are highly conscientious are known as scrupulous, well-organised, diligent, determined and effective in goal setting (Costa and McCrae 1992). They are focused on work tasks and might feel a sense of obligation to fulfil those (Perry et al. 2010). Every kind of learning involves persistence and maintaining the effort to carry out the tasks (Perlow and Kopp 2004). Conscientiousness is the dimension that strongly correlates with the students' tendency to put effort into studying (desire to invest, adjustment and focusing their effort), and to structure their studying time and environment (Bidjerano and Dai 2007; Vasalampi et al. 2014). Therefore, the level of conscientiousness may make a difference between individuals and whether or not they choose to continue to put effort into learning and performing (Perlow and Kopp 2004). Also, people high in conscientiousness translate their work engagement into increased job performance and active learning. They are also more willing to help their colleagues engage in active learning behaviour when they are enthusiastic about their work themselves (Bakker, Demerouti, and Brummelhuis 2012, 562). In other words, conscientiousness may act as a motivational trigger (Perry et al. 2010).

Regarding the relationship between conscientiousness and resistance to change, the literature assigns significant negative associations between the dimensions of neuroticism and conscientiousness and the stress or discomfort of the person in situations that require imposed changes (ie emotional reaction). Similarly, there are negative relationships between extraversion, agreeableness, conscientiousness and the individual's preoccupation with short-term inconveniences rather than long-term benefits (ie short-term focus) (Saksvik and Hetland 2009). Because of the role played by conscientiousness in structuring a person's time and effort for an activity (Bidjerano and Dai 2007), and in their way of approaching change, it is now important to assess the influence conscientiousness has in the relationship between dispositional resistance to change and teachers' attitude towards continuing education.

## The present study

The main objective of the present study was to explore the relationship between two personal factors (ie dispositional resistance to change and teachers' attitude towards their continuing education) and to see if the conscientiousness dimension of personality moderates this relationship. Also, because teachers training in special education positively influences their productivity (Feng and Sass 2013), an additional aim was to see if there were differences among teachers who work in the regular system and those who work in special education, regarding their attitude towards continuing education.

Considering the argument outlined above, three hypotheses were identified as follows: dispositional resistance to change negatively predicts teachers' attitude towards their continuing education (*H1*) and conscientiousness moderates the relationship between dispositional resistance to change and teachers' attitude towards continuing education (*H2*). Also, it was expected there would be differences between teachers who work in the regular education system and those who work in special education regarding attitude towards their continuing education (*H3*).

## Method

### *Participants and procedures*

The sample of this study consisted of 142 Romanian teachers, 132 females (92.95%) and 10 males (7.04%). Involved were teachers from the regular system [ $N_1 = 71$ , aged 26–57 ( $M = 41.59$ ,  $SD = 9.19$ ) and tenure ranging from 2 to 33 years ( $M = 9.19$ ,  $SD = 9.53$ )] and teachers from special education areas [ $N_2 = 71$ , aged 25–60 ( $M = 37.07$ ,  $SD = 9.51$ ), with tenure from 2 to 26 years ( $M = 9.26$ ,  $SD = 6.95$ )]. Teachers were chosen from both the regular and the special systems because their specific teaching activity can influence their attitude towards continuing education. For example, teachers from special education have to deal more often with specific student behaviour problems, and consequently, they appear more open to new learning, asking for and following courses which can help them to manage this kind of situation.

Teachers were selected on a volunteer basis, after participating in training. This training was part of the minimal mandatory planning training that teachers have to participate in during a school year. They were asked to fill out the questionnaires during the training day and return them at the end of it. Teachers were assured regarding the confidentiality of their responses. Of the 160 distributed questionnaires, only 142 were accepted (retention rate = 88.75%) and constituted the basis of this study, because the requirement was for at least two years of experience in teaching, no matter the type of education they were involved in.

### *Measures*

The attitude towards continuing teachers' education was assessed with The Revised Adult Attitudes towards Continuing Education Scale (Blunt and Yang 2002). The questionnaire is made up of 9 items grouped in 3 subscales: enjoyment of learning (eg 'I dislike studying'), perceived importance of education (eg 'Money spent on education/training for teachers is money well spent'), intrinsic value (eg 'Continuing my education would make me feel better



about myself'). Participants were asked to score on a five-point rating scale the extent to which a statement applies to them (1 = strongly disagree to 5 = strongly agree). For contextualised measurement of attitudes, the word 'people' was changed to 'teachers' in some items. For example, the item 'Successful people do not need continuing education' became 'Successful teachers do not need continuing education'. The only difference is that these items describe specifically how teachers see their continuing education. The Alpha Cronbach coefficient value was .73 for the entire questionnaire, and between .75 and .82 for each of the three scales.

Resistance to change was measured with the Resistance to Change Scale (Oreg et al. 2008), which is made up of 17 items distributed in 4 subscales: routine seeking (eg 'I generally consider changes to be a negative thing'), emotional reaction (eg 'If I were to be informed that there is going to be a significant change regarding the way things are done at school, I would probably feel stressed'), short-term focus (eg 'I sometimes find myself avoiding changes that I know will be good for me') and cognitive rigidity (eg 'I don't change my mind easily'). Items consist of statements concerning one's typical orientation towards and reaction to change. Response options range from 1 (strongly disagree) to 6 (strongly agree). The value obtained for the Alpha Cronbach coefficient for the entire questionnaire was .76. The composite score was chosen because the authors emphasised that it predicts individuals' reactions to change in a variety of contexts under both voluntary and imposed conditions (Oreg et al. 2008).

Conscientiousness was measured using the International Personality Item Pool-50 (IPIP-50, Goldberg 1999) questionnaire adapted to the Romanian culture by Rusu et al. (2012). The study showed that the internal consistency of the scales for the entire sample ( $N = 747$ ) varied between .73 and .84, and the correlation values between IPIP-50 scales were similar to those reported in the literature (Rusu et al. 2012). The participants were asked to rate statements concerning their personalities on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). It was applied the entire questionnaire, and all the five dimensions of the personality were scored, but in the present study, it only the score for the dimension of conscientiousness was used. The Alpha Cronbach coefficient value was .72 for the conscientiousness dimension.

Except for the personality questionnaire, which has previously been adapted to the Romanian culture, for the other two Romanian instruments version the standard back-translation technique was used.

### **Data analysis**

The data were analysed with the statistical software package SPSS 19.0. The descriptive statistics and correlation matrix for all study variables (two-tailed) are presented in Table 1. For testing H1 and H2, three hierarchical multiple regression analyses (Table 2) were conducted separately for every dimension of teachers' attitudes towards continuing education as criterion variables (ie enjoyment of learning, perceived importance of continuing teachers' education and intrinsic value of education), and dispositional resistance to change and conscientiousness as predictor variables. For testing the moderating effect of conscientiousness through hierarchical stepwise regression analysis, the variables were transformed and centred on the mean scores (z-scores) and the interaction effect computed. The new variable Dispositional resistance to changeXConscientiousness was the third predictor variable. For testing H3 was used the Student *t*-test for independent samples with the variable 'type of education system' as grouping variables (Table 3).



**Table 1.** Correlation matrix.

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Enjoyment of learning	11.96	1.81	1				
2. Perceived importance of continuing teachers' education	12.16	1.86	.344**	1			
3. Intrinsic value of education	12.16	1.85	.411**	.388**	1		
4. Dispositional resistance to change	54.92	7.36	-.325**	.108	-.088	1	
5. Conscientiousness	38.97	4.84	.232**	.146	.206*	.022	1

Note: *N* = 142.

\*Correlation is significant at  $p < 0.05$ ; \*\*Correlation is significant at  $p < 0.01$ .

## Results

### *Dispositional resistance to change and the moderating role of conscientiousness*

Descriptive statistics and the correlation matrix between all the research variables are presented in Table 1.

A teacher's attitude towards continuing education has an affective component, as well as reflecting beliefs, and values that teachers have about education (Blunt and Yang 2002). Considering this, first their attitude was tested to examine whether dispositional resistance to change explains each of the attitude's dimensions separately (*H1*). Then their attitude was examined to see if conscientiousness was a moderator in the relationship between dispositional resistance to change and the teachers' attitudes towards continuing education (*H2*). Three hierarchical multiple regression analyses were conducted. The results are presented together for both hypotheses and separately for each dimension of attitude (Table 2).

### *Dispositional resistance to change and enjoyment of learning*

For the first regression analysis, dispositional resistance to change is a negative predictor to enjoyment of learning (Table 2), the first model explaining 10.5% ( $R^2 = .105$ ) of enjoyment regarding the experience of learning (*H1* supported for enjoyment of learning). By adding in step 2 of the regression model the dimension of conscientiousness and controlling the influence of dispositional resistance to change, the predictive value of the second model increases to 16.2% ( $\Delta R^2 = .057$ ), with both predictors significant ( $\beta_1 = -.330$ ;  $\beta_2 = .239$ , respectively). In step 3, the interaction between dispositional resistance to change and conscientiousness was added to the regression model, which accounts for a significant proportion of the variance in enjoyment of learning,  $\Delta R^2 = .031$ , [ $F(1, 138) = 5.353$ ,  $p = .02$ ]. This result indicates that conscientiousness moderates the relationship between dispositional resistance to change and enjoyment of learning (*H2* confirmed for enjoyment of learning), the model explaining 19.4% of the variance ( $R^2 = .194$ ,  $p = .02$ ). The direction of the moderation effect regarding the enjoyment of learning dimension can be seen in Figure 1.

### *Dispositional resistance to change and perceived importance of continuing teachers' education*

For the second regression analysis (Table 2), the first model has an explanatory potential of 1.2% ( $R^2 = .012$ ), but the predictor dispositional resistance to change did not reach a significant value (*H1* invalidated for the perceived importance of continuing teachers' education). By adding in step 2 of the regression model the dimension of conscientiousness

Table 2. Hierarchical multiple regression results.

Variables	Enjoyment of learning			Perceived importance of continuing teachers' education			Intrinsic value of education		
	R <sup>2</sup>	ΔR <sup>2</sup>	β	R <sup>2</sup>	ΔR <sup>2</sup>	β	R <sup>2</sup>	ΔR <sup>2</sup>	β
Step 1									
Dispositional resistance to change	.105	.105**	-.325**	.012	.012	.108	.008	.008	-.088
Step 2									
Dispositional resistance to change	.162	.057**	-.330**	.032	.021	.105	.051	.043*	-.092
Conscientiousness			.239**			.143			.208*
Step 3									
Dispositional resistance to change	.194	.031*	-.402**	.041	.009	.066	.055	.004	-.118
Conscientiousness			.181*			.113			.188*
Dispositional resistance to changeXConscientiousness			-.200*			-.107			-.071

Note: N = 142.

\*Correlation is significant at  $p < 0.05$ ; \*\*Correlation is significant at  $p < 0.01$ .

**Table 3.** Differences regarding teachers' attitude towards continuing education according to the type of education system.

Variables	Teachers from regular education (N= 71)	Teachers from special education (N= 71)	t test
	Mean (SD)	Mean (SD)	
Enjoyment of learning	11.88 (1.92)	12.04 (1.70)	.50
Perceived importance of continuing teachers' education	11.80 (2.03)	12.53 (1.61)	2.37**
Intrinsic value of education	12.01 (2.03)	12.30 (1.65)	.95

Note: SD = standard deviation.

\*\*Correlation is significant at  $p < .01$ .

and controlling the influence of dispositional resistance to change, the predictive value of the model increases to 3.2% ( $\Delta R^2 = .021$ ), with none of the predictors reaching significant values. In step 3, the interaction between dispositional resistance to change and conscientiousness was added to the regression model, which accounts for a non-significant proportion of the variance in the perceived importance of continuing teachers' education ( $\Delta R^2 = .009$ ). This result indicates that conscientiousness does not moderate the relationship between dispositional resistance to change and perceived importance of continuing teachers' education ( $H2$  invalidated for the perceived importance of continuing teachers' education).

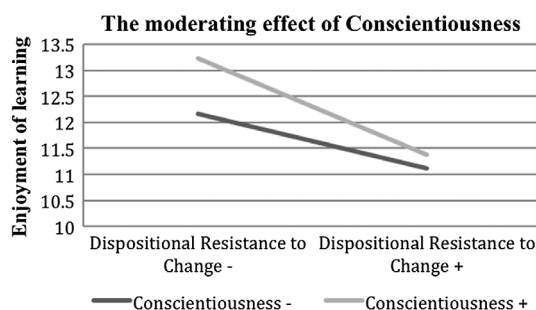
### **Dispositional resistance to change and intrinsic value of education**

For the third regression analysis (Table 2), the predictive value of dispositional resistance to change for the intrinsic value of education, the first model shows an explanatory potential of 0.8% ( $R^2 = .008$ ) with a non-significant predictor ( $H1$  invalidated for intrinsic value of education). The second model added 4.3% ( $\Delta R^2 = .043$ ), and only conscientiousness is a significant predictor ( $\beta = .208$ ). The third model has an explanatory potential of 5.5% ( $R^2 = .055$ ), and only conscientiousness is a significant predictor ( $\beta = .188$ ). This result indicates that conscientiousness does not moderate the relationship between dispositional resistance to change and the dimension intrinsic value of education ( $H2$  invalidated for intrinsic value of education).

To sum up, the first hypothesis received statistical support only for the enjoyment of learning dimension of attitude towards continuing education and not for the other two dimensions. So, *dispositional resistance to change negatively predicts teachers' enjoyment of learning*. The second hypothesis also received statistical support for the enjoyment of learning dimension of attitude towards continuing education and not for the other two dimensions. Accordingly, *conscientiousness is a moderator only for the relationship between dispositional resistance to change and teachers' enjoyment of learning* (Figure 1).

### **Teachers' attitude towards continuing education according to the type of education**

Concerning the third hypothesis, the study was focused on identifying differences regarding teachers' attitude towards continuing education according to the type of education in which they are involved. Statistical results (Table 3) partially supported the hypothesis and indicated



**Figure 1.** The moderating effect of conscientiousness upon the relationship between dispositional resistance to change and enjoyment of learning.

differences only at the level of the perception teachers have of the importance of their continuing education – *those working in special education considering continuing teachers' education more important.*

## Discussion

The aim of this study was to explore the relationship between two personal factors (ie dispositional resistance to change and teachers' attitude towards their continuing education) and to see if the conscientiousness dimension of personality moderates the relationship between dispositional resistance to change and attitude towards continuing education. An additional aim was to see if there were differences between teachers who work in the regular system and those who work in special education regarding their attitude towards continuing education.

### *Dispositional resistance to change and the moderating role of conscientiousness*

The central findings of this research indicated that dispositional resistance to change is a negative predictor for teachers' enjoyment of learning and conscientiousness moderates the relationship between dispositional resistance to change and enjoyment of learning. Therefore, the results showed that teachers with a high level of dispositional resistance to change would enjoy the learning process less, and if the change is imposed, then it is more likely they will experience negative emotions related to change. Furthermore, it can be speculated that resistance to change may act, along with others variables, as a personal antecedent for the enjoyment of learning. This result has to be confirmed in future research because is important to know how to stimulate teachers' participation in continuing education. These findings are also in line with other studies' results conducted into organisational context. For instance, Oreg (2003) asserted that the impact of resistance to change has a large influence on employees' emotional responses, and there is a strong negative relationship between employees' resistance to change and the affective dimension of their attitude towards the specific change (Oreg 2006).

Enjoyment of learning is a multidimensional construct consisting of affective, motivational, cognitive, physiological and expressive components (Hagenauer and Hascher 2010), but generally, it is considered a positive emotion with motivational and cognitive

consequences (Buff 2014). Former studies indicate that the joy of learning can be more intense if the person has the perception of control over their learning situation and if this learning has value for their development (Buff 2014). In addition, if the situation is evaluated by the learner as controllable and valuable, then the learning enjoyment causes arousal (Hagenauer and Hascher 2010). Furthermore, knowing that participation behaviour is directly influenced by enjoyment of learning (Blunt and Yang 2002), decreasing the resistance to change might increase the number of teachers who choose to be involved in continuing professional education.

Additionally, conscientiousness moderates the relationship between the two variables. For those with high dispositional resistance to change, whether we talk about a low or a high level of conscientiousness, the joy of learning has almost the same intensity. If dispositional resistance to change is low, those with a higher level of conscientiousness enjoy the learning experience more than those with a low level of conscientiousness. Bakker, Demerouti, and Brummelhuis (2012) also showed that employees are more involved in learning when they set high demands for themselves (have a high level of conscientiousness), conscientiousness being linked to motivation, the fulfilling of commitments (Muris, Meesters, and Diederens 2005), the readiness to take on responsibility (Smidt, Kammermeyer, and Roux 2015) or persistence in the service of achievement (Bidjerano and Dai 2007).

### ***Teachers' attitude towards continuing education according to the type of education***

The quality of teachers' instruction has a significant impact on student achievement, particularly in the special education area (Feng and Sass 2013). The results obtained suggested that teachers from special education consider continuing education as being more important for their activity. At least three possible explanations may be considered. The first one could be that for them, the benefits of applying what they learn in training are more visible and work faster in improving attainment and changing students' behaviour. Actually, studies showed that continuing training for those who work in special education positively correlates with the performance of students with disabilities (Feng and Sass 2013), with courses bringing an added value to practicing at a classroom level. Second, teachers who are interested in increasing their competencies demonstrate a more positive attitude towards further training and attend more training, but also perceive less occupational strain (Nitsche et al. 2013), professional development being positively associated with teachers' efficiency (Feng and Sass 2013). Third, such teachers have to work with more challenging children (with different special educational needs) and deal with their families too. Because of that context, they need to be up to date regarding teaching, evaluation or communication methods or techniques.

### **Conclusions and implications for research and practice**

Resistance to change, attitudes towards continuing education, especially enjoyment of learning, and conscientiousness are personal variables which can help us to make teachers' continuing professional development more effective or further to enhance 'future-oriented behaviours' (Gan, Zheng, and Wen 2014). The present study indicated that the higher the resistance to change is, the lower the enjoyment of learning is. Enjoyment of learning is truly

important for people learning. For example, it is involved in fulfilling the basic needs for competence and relatedness, in the case of students, and also the need for autonomy, in the case of adults (Hagenauer and Hascher 2010). The enjoyment of learning has a direct impact on participation behaviour in continuing education (Blunt and Yang 2002). In such conditions, reducing the level of resistance to change needs to become a priority. Introducing change gradually, by showing teachers the importance and benefits that come with it, and creating a safe learning environment that will help them to deal with the change, could decrease their level of resistance. Offering them career counselling services (Oreg et al. 2008) with a focus on education programmes closely related to their real training needs could also be a way of reducing resistance to change. Additionally, a more careful and thorough analysis of emotions experienced and the way they influence teachers' work, professional identity and commitment in situations that require change or the process of change itself would be very useful (Veen, Slegers, and Ven 2005).

The conscientiousness dimension of personality, as a motivational disposition (Bakker, Demerouti, and Brummelhuis 2012), moderates the relationship between resistance to change and the affective component of the attitude towards continuing education. Consequently, if dispositional resistance to change is low, those with a higher level of conscientiousness enjoy the learning experience more than those with a low level of conscientiousness. This is another significant result for practice in continuing teachers' education. For instance, studies have indicated that people high in conscientiousness perform better and engage more in active learning as a function of their work engagement (Bakker, Demerouti, and Brummelhuis 2012). For this reason, trainers should value such people as a learning resource for other colleagues, because of their willingness to help others engage in continuing development (Bakker, Demerouti, and Brummelhuis 2012).

The results of this research are important for both theory and practice. From the theoretical perspective, they bring add to knowledge by enhancing our understanding of the way these personal factors explain and influence teachers' participation in continuing education. Concerning the practical aspect, they can help trainers in designing learning to make it a more context-adapted and pleasant experience. The results are also valuable at the national level. To the best of the researchers' knowledge, this is the first study which provides some explanation about the relationships between these three variables, offering a picture of the national reality and some suggestions for better practices.

Finally, there are some limits to this research that need to be mentioned. First of all, the sample could be considered not diverse enough in terms of the participants and the schools they came from. Second, the results were based only on questionnaires of the self-report type, which depend on the ability of respondents to be accurate in their introspection (Cools and Van den Broeck 2007). Third, there was no information about the teachers' actual participation behaviour in training activities (eg how many training programmes were followed in recent years). If there had been such information, the impact of these personal variables upon the actual participation of teachers in continuing education could have been examined. It is well known that resistance to change, like the attitude towards continuing education, implies cognitive, affective and behavioural dimensions too (Lines et al. 2015). In such circumstances, it would be interesting to explore separately the relationships between resistance to change and the attitude towards continuing education dimensions. Therefore, continuing research in this direction is necessary, alongside the introduction of other variables that could explain and also facilitate learning and teachers' continuing education (eg

organisational culture). In this way, the relationship between contextual and individual factors having a role in stimulating participative behaviour could be identified. However, despite these limitations, the significance of this study's results should not be underestimated.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## References

- Arciniega, L. M., and L. González. 2009. "Validation of the Spanish-language Version of the Resistance to Change Scale." *Personality and Individual Differences* 46: 178–182. doi:[10.1016/j.paid.2008.09.024](https://doi.org/10.1016/j.paid.2008.09.024).
- Arora, R., and S. Rangnekar. 2016. "Moderating Mentoring Relationships and Career Resilience: Role of Conscientiousness Personality Disposition." *Journal of Workplace Behavioral Health* 31 (1): 19–36. doi:[10.1080/15555240.2015.1074052](https://doi.org/10.1080/15555240.2015.1074052).
- Bakkenes, I., J. D. Vermunt, and T. Wubbels. 2010. "Teacher Learning in the Context of Educational Innovation: Learning Activities and Learning Outcomes of Experienced Teachers." *Learning and Instruction* 20: 533–548. doi:[10.1016/j.learninstruc.2009.09.001](https://doi.org/10.1016/j.learninstruc.2009.09.001).
- Bakker, A. B., E. Demerouti, and L. L. Brummelhuis. 2012. "Work Engagement, Performance, and Active Learning: The Role of Conscientiousness." *Journal of Vocational Behavior* 80: 555–564. doi:[10.1016/j.jvb.2011.08.008](https://doi.org/10.1016/j.jvb.2011.08.008).
- Battistelli, A., F. Montani, and C. Odoardi. 2013. "The Impact of Feedback from Job and Task Autonomy in the Relationship between Dispositional Resistance to Change and Innovative Work Behavior." *European Journal of Work and Organizational Psychology* 22 (1): 26–41. doi:[10.1080/1359432X.2011.616653](https://doi.org/10.1080/1359432X.2011.616653).
- Bidjerano, T., and D. Y. Dai. 2007. "The Relationship between the Big-five Model of Personality and Self-regulated Learning Strategies." *Learning and Individual Differences* 17: 69–81. doi:[10.1016/j.lindif.2007.02.001](https://doi.org/10.1016/j.lindif.2007.02.001).
- Blunt, A., and B. Yang. 2002. "Factor Structure of the Adult Attitudes toward Adult and Continuing Education Scale and Its Capacity to Predict Participation Behavior: Evidence for Adoption of a Revised Scale." *Adult Education Quarterly* 52 (4): 299–314.
- Bronkhorst, L. H., B. Koster, P. C. Meijer, N. Woldman, and J. D. Vermunt. 2014. "Exploring Student Teachers' Resistance to Teacher Education Pedagogies." *Teaching and Teacher Education* 40: 73–82. doi:[10.1016/j.tate.2014.02.001](https://doi.org/10.1016/j.tate.2014.02.001).
- Buff, A. 2014. "Enjoyment of Learning and Its Personal Antecedents: Testing the Change–Change Assumption of the Control-value Theory of Achievement Emotions." *Learning and Individual Differences* 31: 21–29. doi:[10.1016/j.lindif.2013.12.007](https://doi.org/10.1016/j.lindif.2013.12.007).
- Cools, E., and H. Van den Broeck. 2007. "Development and Validation of the Cognitive Style Indicator." *Journal of Psychology: Interdisciplinary and Applied* 141 (4): 359–387. doi:[10.3200/JRPL.141.4.359-388](https://doi.org/10.3200/JRPL.141.4.359-388).
- Costa, P. T., and R. R. McCrae. 1992. "Normal Personality Assessment in Clinical Practice: The NEO Personality Inventory." *Psychological Assessment* 4 (1): 5–13. doi:[10.1037/1040-3590.4.1.5](https://doi.org/10.1037/1040-3590.4.1.5).
- EACEA (European Commission/EACEA/Eurydice). 2013. *Key Data on Teachers and School Leaders in Europe. 2013 Edition. Eurydice Report*. Publications Office of the European Union. Accessed December 4, 2016. <http://eacea.ec.europa.eu/education/eurydice>
- Feng, L. 2010. *Teacher Career Motivation and Professional Development in Special and Inclusive Education in China*. Rotterdam: Sense Publishers.
- Feng, L., and T. R. Sass. 2013. "What Makes Special-education Teachers Special? Teacher Training and Achievement of Students with Disabilities." *Economics of Education Review* 36: 122–134. doi:[10.1016/j.econedurev.2013.06.006](https://doi.org/10.1016/j.econedurev.2013.06.006).
- Gan, Y., W. Zheng, and Y. Wen. 2014. "The Sequential Model of Future-oriented Coping and Adjustment to University Life: The Role of Attitudes as Further Evidence." *Psychological Record* 64: 13–20. doi:[10.1007/s40732-014-0024-0](https://doi.org/10.1007/s40732-014-0024-0).



- Goldberg, L. R. 1999. "A Broad-bandwidth, Public Domain, Personality Inventory Measuring the Lower-level Facets of Several Five-factor Models." In *Personality Psychology in Europe*, edited by I. Mervielde, I. Deary, F. De Fruyt, and F. Ostendorf, Vol. 7, 7–28. Tilburg: Tilburg University Press.
- Gorozidis, G., and A. G. Papaioannou. 2014. "Teachers' Motivation to Participate in Training and to Implement Innovations." *Teaching and Teacher Education* 39: 1–11. doi:10.1016/j.tate.2013.12.001.
- Hagenauer, G., and T. Hascher. 2010. "Learning Enjoyment in Early Adolescence." *Educational Research and Evaluation* 16 (6): 495–516. doi:10.1080/13803611.2010.550499.
- Hargreaves, A. 2005. "Educational Change Takes Ages: Life, Career and Generational Factors in Teachers' Emotional Responses to Educational Change." *Teaching and Teacher Education* 21: 967–983. doi:10.1016/j.tate.2005.06.007.
- Hopkins, D., and P. Holborn. 1983. "The University Course as Continuing Education for Teachers." *British Journal of In-service Education* 9 (3): 168–174. doi:10.1080/0305763830090306.
- Jigău, M., ed. 2009. *Formarea profesională continuă în România* [Continuing Training in Romania]. Bucureşti: Institutul de Ştiinţe ale Educaţiei.
- Kwakman, K. 2003. "Factors Affecting Teachers' Participation in Professional Learning Activities." *Teaching and Teacher Education* 19: 149–170. doi:10.1016/S0742-051X(02)00101-4.
- LNE (Law of National Education). 2011. Accessed September 25, 2016. <http://www.edu.ro/index.php/legaldocs/14847>
- Linden, D. V. D., J. T. Nijenhuis, and A. B. Bakker. 2010. "The General Factor of Personality: A Meta-analysis of Big Five Intercorrelations and a Criterion-related Validity Study." *Journal of Research in Personality* 44: 315–327. doi:10.1016/j.jrp.2010.03.003.
- Lines, B. C., K. T. Sullivan, J. B. Smithwick, and J. Mischung. 2015. "Overcoming Resistance to Change in Engineering and Construction: Change Management Factors for Owner Organizations." *International Journal of Project Management* 33: 1170–1179. doi:10.1016/j.ijproman.2015.01.008.
- Lohman, M. C. 2006. "Factors Influencing Teachers' Engagement in Informal Learning Activities." *Journal of Workplace Learning* 18: 141–156. doi:10.1108/13665620610654577.
- Maskit, D. 2011. "Teachers' Attitudes toward Pedagogical Changes during Various Stages of Professional Development." *Teaching and Teacher Education* 27: 851–860. doi:10.1016/j.tate.2011.01.009.
- Muris, P., C. Meesters, and R. Diederer. 2005. "Psychometric Properties of the Big Five Questionnaire for Children (BFQ-C) in a Dutch Sample of Young Adolescents." *Personality and Individual Differences* 38: 1757–1769. doi:10.1016/j.paid.2004.11.018.
- Nitsche, S., O. Dickhäuser, M. S. Fasching, and M. Dresel. 2013. "Teachers' Professional Goal Orientations: Importance for Further Training and Sick Leave." *Learning and Individual Differences* 23: 272–278. doi:10.1016/j.lindif.2012.07.017.
- OECD. 2007. *Synthesis Report and Chapter 8 Romania in Education Policies for Students at Risk and Those with Disabilities in South Eastern Europe: Bosnia-Herzegovina, Bulgaria, Croatia, Kosovo, FYR of Macedonia, Moldova, Montenegro, Romania and Serbia*. Paris: Organization for Economic Co-operation and Development.
- Opfer, V. D., D. G. Pedder, and Z. Lavicza. 2011. "The Role of Teachers' Orientation to Learning in Professional Development and Change: A National Study of Teachers in England." *Teaching and Teacher Education* 27: 443–453. doi:10.1016/j.tate.2010.09.014.
- Oreg, S. 2003. "Resistance to Change: Developing an Individual Differences Measure." *Journal of Applied Psychology* 88: 680–693. doi:10.1037/0021-9010.88.4.680.
- Oreg, S. 2006. "Personality, Context, and Resistance to Organizational Change." *European Journal of Work and Organizational Psychology* 15 (1): 73–101. doi:10.1080/13594320500451247.
- Oreg, S., M. Bayazit, M. Vakola, L. Arciniega, A. Armenakis, R. Barkauskiene, N. Bozionelos, et al. 2008. "Dispositional Resistance to Change: Measurement Equivalence and the Link to Personal Values across 17 Nations." *Journal of Applied Psychology* 93 (4): 935–944. doi:10.1037/0021-9010.93.4.935.
- Oreg, S., O. Nevo, H. Metzger, N. Leder, and D. Castro. 2009. "Dispositional Resistance to Change and Occupational Interests and Choices." *Journal of Career Assessment* 17 (3): 312–323. doi:10.1177/1069072708330599.
- Perlow, R., and L. S. Kopp. 2004. "Conscientiousness and Ability as Predictors of Accounting Learning." *Human Performance* 17 (4): 359–373. doi:10.1207/s15327043hup1704\_1.

- Perry, S. J., E. M. Hunter, L. A. Witt, and K. J. Harris. 2010. "P = F (Conscientiousness  $\times$  Ability): Examining the Facets of Conscientiousness." *Human Performance* 23 (4): 343–360. doi:[10.1080/08959285.2010.501045](https://doi.org/10.1080/08959285.2010.501045).
- Reio Jr, T. G. 2005. "Emotions as a Lens to Explore Teacher Identity and Change: A Commentary." *Teaching and Teacher Education* 21: 985–993. doi:[10.1016/j.tate.2005.06.008](https://doi.org/10.1016/j.tate.2005.06.008).
- Rusu, S., L. P. Maricuțoiu, I. Macsinga, D. Virgă, and F. A. Sava. 2012. *Evaluarea personalității din perspectiva modelului Big Five. Date privind adaptarea chestionarului IPIP-50 pe un eșantion de studenți români* [Personality Assessment in Terms of the Big Five Model. Data concerning the Adaptation of the IPIP-50 Questionnaire on a Sample of Romanian Students]. *Human Resources Psychology* 10 (1): 39–56.
- Saksvik, I. B., and H. Hetland. 2009. "Resistance to Organizational Change: Individual Reactions to Change on the Emotional, Attitudinal, and Behavioral Levels." In *Prerequisite for Healthy Organizational Change*, edited by Per Oystein Saksvik, 70–75. Beijing: Bentham Science Publishers.
- Scott, H. V. 1976. "Toward a New Model of Continuing Education for Teachers." *Kappa Delta Pi Record* 12 (3): 77–79. Published on-line September 21, 2012. doi:[10.1080/00228958.1976.10516923](https://doi.org/10.1080/00228958.1976.10516923).
- Seifert, K., and R. Sutton. 2009. *Educational Psychology*. 2nd ed. Creative Commons Attribution 3.0 License. Zurich: The Global Text Project.
- Smidt, W., G. Kammermeyer, and S. Roux. 2015. "Relations between the Big Five Personality Traits of Prospective Early Childhood Pedagogues and Their Beliefs about the Education of Preschool Children: Evidence from a German Study." *Learning and Individual Differences* 37: 96–106. doi:[10.1016/j.lindif.2014.11.002](https://doi.org/10.1016/j.lindif.2014.11.002).
- Torff, B., D. Sessions, and K. Byrnes. 2005. "Assessment of Teachers' Attitudes about Professional Development." *Educational and Psychological Measurement* 65 (5): 820–830. doi:[10.1177/0013164405275664](https://doi.org/10.1177/0013164405275664).
- Vasalampi, K., P. Parker, A. Tolvanen, O. Lüdtke, K. Salmela-Aro, and U. Trautwein. 2014. "Integration of Personality Constructs: The Role of Traits and Motivation in the Willingness to Exert Effort in Academic and Social Life Domains." *Journal of Research in Personality* 48: 98–106. doi:[10.1016/j.jrp.2013.11.004](https://doi.org/10.1016/j.jrp.2013.11.004).
- Veen, K., P. Sleegers, and P.-H. Ven. 2005. "One Teacher's Identity, Emotions, and Commitment to Change: A Case Study into the Cognitive–Affective Processes of a Secondary School Teacher in the Context of Reforms." *Teaching and Teacher Education* 21: 917–993. doi:[10.1016/j.tate.2005.06.004](https://doi.org/10.1016/j.tate.2005.06.004).
- Vermunt, J. D., and M. D. E. Endedijk. 2011. "Patterns in Teacher Learning in Different Phases of the Professional Career." *Learning and Individual Differences* 21: 294–302. doi:[10.1016/j.lindif.2010.11.019](https://doi.org/10.1016/j.lindif.2010.11.019).
- Wlodkowski, R. J. 1998. *Enhancing Adult Motivation to Learn, a Comprehensive Guide for Teaching All Adults*. San Francisco, CA: Jossey-Bass.
- Wlodkowski, R. J. 2003. "Fostering Motivation in Professional Development S." In *New Perspectives on Designing and Implementing Professional Development of Teachers of Adults*, New Directions for Adult and Continuing Education, 98, edited by K. P. King and P. A. Lawler, 39–47. San Francisco, CA: Jossey-Bass.
- Yang, B., A. Blunt, and R. S. Butler. 1994. "Prediction of Participation in Continuing Professional Education: A Test of Two Behavioural Intention Models." *Adult Education Quarterly* 44 (2): 83–96.