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# Exploring attitudes towards adult learning and education: group patterns among participants and non-participants

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## ABSTRACT

Based on contemporary theories of participation, attitudes toward Adult Learning and Education (*ALE*) are considered crucial determinants predicting adults' involvement in further education. However, their investigation is usually not empirically systematic and theoretically grounded. For this reason, the article analyses attitudes to *ALE* based on a novel approach - the triadic model of culture by Lizardo. We present a conceptualisation of attitudes to *ALE*, inspired by this model, distinguishing between (1) public, (2) personal declarative, and (3) personal non-declarative dimensions of attitudes. Based on that, we show the empirical results of a representative survey among adult population (25-69 years) in the Czech Republic ( $n = 1200$ ). In this regard, we map differences in attitudes between participants and nonparticipants and results of a cluster analysis to identify main groups with similar attitudes toward *ALE*. Our findings confirm the employed theoretical concept and identify significant differences between participants and nonparticipants. Beyond that, we identify four clusters of adults with distinctive attitudes of which all contain a different mixture of participants and nonparticipants: (1) adults with positive attitudes; (2) adults with personal obligations toward *ALE*; (3) adults who see the public value of *ALE*; (4) adults with negative attitudes.

**KEYWORDS** Attitudes, adult education and training, participation in *ALE*, cluster analysis

## Introduction

This article analyses attitudes toward Adult Learning and Education (*ALE*) through a novel theoretical conceptual lens, tested through empirical data from the Czech Republic. In line with the previous literature (**Eagly and Chaiken 2014; Procter 2008**), we understand attitudes as everyday judgments and feelings in the form of normative views on a specific matter. They are evaluative instead of descriptive statements that implicitly or explicitly involve cultural meaning as positive/negative, good/bad, appropriate/inappropriate. Moreover, they may be declared or non-declared -further explained below - and are related to concrete issues rather than general ones (**Hogg and Vaughan 2002**).

According to many authors (**Sloman 2005; Patterson 2014**), culture has high relevance for attitudes formation. Individuals acquire their attitudes based on the culture where they live and grew up in. In this regard, culture consists of a combination of shared cultural symbols, codes, artefacts, practices, and values internalised by social actors and used to understand the world around them and to evaluate various persons, objects, behaviours or issues, included lifelong learning.

The relevance of the attitudes lies in the fact that they can affect not only an individual action (**Ajzen and Fishbein 2014**) but also shape behaviours of social groups (**Fazio and Olson 2003**) and can influence people's support for particular policies (**Busemeyer, Garritzmann, and Neimanns 2020**). In this regard, attitudes give cues to actors whether certain behaviour or the evaluated object is appropriate or worthwhile. Moreover, once they are acquired, it is difficult to change them (**Eagly and Chaiken 2014**).

Within the context of education, attitudes towards *ALE* are considered an essential factor that influences the decision-making of adults regarding their behaviour to participate in education and training activities. Many authors (**Boeren 2016, 2017; Illeris 2006; Kyndt et al. 2013a, 2013b; Lavrijsen and Nicaise 2017; Rubenson 2010**) in this context stated that if adults have a positive image of *ALE*, consider participation as a profitable or valuable, and possibly associate learning with pleasant feelings and emotions like joy, pride and satisfactions, they are generally more open to participation. If their attitudes are primarily negative, they tend to be reluctant to this activity.

The ambition of presented paper is to fill two main gaps in the existing literature. Firstly, while attitudes towards *ALE* are perceived as important predictors of participation (**Boeren 2016; Blunt and Yang 2002; Hayes and Darkenwald 1990**), they are rarely being empirically investigated. One of the core reasons for this is the lack of available quality data on attitudes in the large datasets that measure participation in *ALE*. At the European level, these include the Eurostat Adult Education Survey (*AES*) and the Labour Force Survey (*LFS*) as well as the *OECD's* Programme for the International Assessment of Adult Competencies (*PIAAC*). Items directly focused on attitudes toward *ALE* were only utilised in *AES* 2007, when eight questions regarding this phenomenon were included in the questionnaire. However, these items were not validated, and to our knowledge, only one author (*Boeren 2011*) analysed them in detail. In addition to this research, several scholars (**Bennett 2016; Blunt and Yang 2002; Darkenwald and Hayes 1988; Hayes and Darkenwald 1990; Lavrijsen and Nicaise 2017**) have investigated attitudes related to *ALE* on smaller, non-representative samples of adults, mainly learners in higher adult education. According to these studies, attitudes toward *ALE* can be grouped into three general categories: (1) attitudes toward learning activity, (2) the intrinsic value of education, and (3) the importance of education. While these findings are promising, their sampling approaches do not provide the opportunity to make generalisable statements about determinants of participation. Based on this, we aim to contribute to the previous literature by examining attitudes on a national level with a representative sample of respondents.

Secondly, the conceptualisation of attitudes toward *ALE* is not well developed. Most previous research on this topic (**Bennett 2016; Blunt and Yang 2002; Darkenwald and Hayes 1988; Hayes and Darkenwald 1990**) has employed only one theoretical perspective for conceptualising attitudes: **Rokeach's (1968)** notion of attitudes as a relatively enduring organisation of beliefs around an object or situation predisposing to behave in a particular manner. Additionally, some authors (**Boeren 2011, 2016; Van Nieuwenhove and De Wever 2022**) have drawn on **Ajzen and Fishbein's (2014)** theory, in which the conceptualisation of attitude is rather general because it represents only part of the chain of the theory of intentional behaviour.

Although these approaches are helpful in understanding attitudes, they are built on the assumption that attitudes represent a stable evaluation of an activity or object without further clarification on the cultural source (**Sloman 2005; Patterson 2014**) of these evaluations - for instance, personal beliefs, public discourse, or embodied feelings regarding the object. In this regard, we do not know whether attitudes are primarily fuelled by a personal or public view of *ALE* or whether emotional associations related to learning, i.e. the affective component of emotions, are the main drivers of positive/negative evaluation of *ALE*. Therefore, we believe that wider interpretations of attitudes in relation to cultural influences and the affective component (emotional associations) and their relationship with participation behaviour could help further unpack the complexity of determinants of participation. The analyses in this paper use Lizardo's framework - explained in detail below - to engage with this investigation.

### **Aim of the study**

Following these two gaps, the paper proposes two research aims. First, it is a conceptualisation of attitudes toward *ALE* inspired by the **Lizardo (2017)** conception of cultural analysis. Specifically, we draw out a conceptualisation based on Lizardo which distinguishing three different forms of attitudes to: (1) individual meaning of *ALE*, (2) public meaning of *ALE*, and (3) emotional associations related to *ALE*. The paper's second aim is to test the validity of this conceptualisation using a representative survey of the Czech adult population ( $n = 1200$ , age 25-69 years). To this point, we intend to answer three following empirical research questions:

- (1) What are attitudes toward *ALE* among the Czech adult population?
- (2) What are the differences in attitudes towards *ALE* between participants and nonparticipants?
- (3) Which groups of adults - regardless their participation status - can be identified based on their prevailing attitudes towards *ALE*?

### **Three forms of attitudes to adult education and learning**

From the perspective of contemporary cultural sociology (**Lizardo 2014; Martin 2011; Vaisey and Valentino 2018**), we can consider adult education and training a cultural phenomenon with its various meanings, cultural manifestations and codes that can be both cognitively internalised and embodied by adults. Based on this internalisation as well as a continuous elaboration of cultural aspects by actors, adults acquire their attitudes towards *ALE*.

Following the main arguments of the contemporary debate (e.g. **Lizardo 2014; Ignatow 2014; Martin 2011**) on how to study complex cultural phenomena, we believe that one of the most interesting and helpful approaches for investigating attitudes toward *ALE* is **Lizardo's (2017)** conception of cultural analysis.

This assumption draws not only from appraised recognition of this analytical conception in the sociology of culture and cognition (e.g. **Cerulo 2018; Vaisey and Valentino 2018**) but also from its utility as a helpful theoretical framework for empirical investigation of different cultural aspects of lifelong learning.

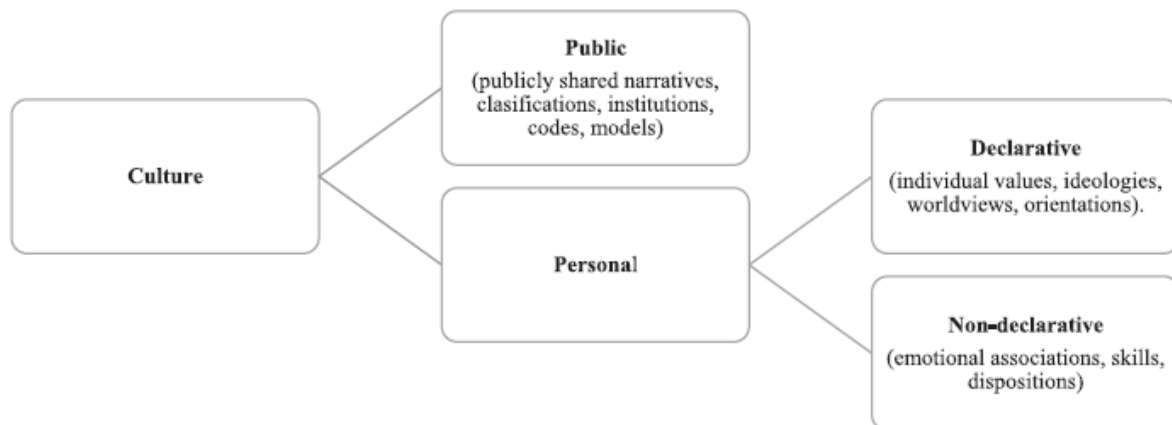
In this regard, **Lizardo (2017)** theoretical framework distinguishes between (1) public and (2) personal dimensions of culture, where the former represents externalised and publicly shared codes, symbols, discourses, and institutions. On the other hand, the second dimension refers to varieties of culture manifest at the level of an individual. Directly on this level, **Lizardo (2017, 92)** makes another distinction between (3) declarative and (4) non-declarative dimensions of culture (see **Figure 1**).

These two dimensions are differentiated according to two key characteristics: a form of exposure and a form of encoding. The declarative dimension of culture represents symbolically mediated and quickly learnable culture representing explicit knowledge about the world used by actors and stored in their semantic memory. Contrary, the non-declarative dimension refers to implicit, durable, emotional associations that can be internalised only by slow learning.

Taken together, they form a model of culture that can cover key forms of culture and the relationships between them. Based on this conception, we propose that adults build their attitudes toward *ALE* on three different levels, and therefore we can distinguish three forms of attitudes to this phenomenon. Each of them represents a specific set of everyday judgments or feelings in the form of normative views of *ALE* (**Hogg and Vaughan 2002**):

- (1) Attitudes to personal meaning of *ALE* (personal declarative dimension). This type of attitude includes everyday judgements of the utility and expectations regarding lifelong learning. For example, whether adults suppose that they have to return to formal education during their life course or whether they think that *ALE* is benefiting activity for their lives. Following Lizardo's argument, this type of attitude is acquired from fast learnable culture, e.g. discourses and cultural codes, and stored in the semantic memory of an individual in the form of values, ideologies and worldviews. This attitude is similar to what previous research (**Blunt and Yang 2002; Darkenwald and Hayes 1988; Hayes and Darkenwald 1990**) referred to as attitudes toward learning activity and the intrinsic value of education. Scholars influenced by **Rokeach's (1968)** conception have distinguished in this case between attitudes oriented toward activity (i.e. learning) and object (i.e. intrinsic value of learning). However, we have not used such a model because we have been more interested in various cultural dimensions of attitudes.
- (2) Attitudes to public meaning of *ALE* (personal aspects of public declarative dimension). These attitudes represent normative views of publicly shared meanings of lifelong learning. Based on Lizardo's classification of the public declarative dimension, they contain an evaluation of institutions and key narratives of adult learning by actors. In regard to Lizardo's original framework, we must note that this dimension is accessed through personal lens of respondents, so the public dimension is never captured perfectly. We suppose that this type of attitude covers not only the evaluation of educational and learning opportunities but also the perception of equal access to *ALE* and the social function of continuous learning. Whether it serves society as a tool for the enhancement of income of individuals and their employability. In this context, our conceptualisation of this form of attitude is not far from what previous research (**Blunt and Yang 2002; Darkenwald and Hayes 1988; Hayes and Darkenwald 1990**) described as the 'importance of education' factor. However, we have placed more emphasis on the currently publicly shared meanings where *ALE* plays a major role in individual employability and national competitiveness (**Boeren 2016**).
- (3) Emotional associations related to *ALE* (personal aspects of non-declarative dimension). The last subtype of attitudes in the proposed model is focused on positive/ negative emotional

associations with adult education. These associations are relevant because they represent implicit notions of *ALE* that, contrary to the previous two forms, is internalised via slow learning and is deeply embodied. Therefore, according to **Lizardo (2017)**, they can recall **Bourdieu (1990)** notion of habitus as embodied schemas and emotional associations related to a particular phenomenon. This concept of attitude has not been examined by previously validated research tools in the field of *ALE*. Therefore, we argue that it could shed light on less conscious aspects of participation in organised learning.



**Figure 1.** Classification of culture (adapted from **Lizardo 2017**, 94).

In conclusion, we understand attitudes toward *ALE* as multidimensional, everyday judgments and feelings about *ALE* in the form of normative views predisposing behaviour. They are empirically measurable through evaluative statements that implicitly or explicitly involve cultural meanings as positive/negative and good/bad in regard to *ALE*.

Although scholars (**Eagly and Chaiken 2014; Hogg and Vaughan 2002; Procter 2008**) have traditionally distinguished between cognitive, conative/behavioural, and emotional associations, we do not explicitly use this categorisation. According to the cultural approach used (**Martin 2011; Vaisey and Valentino 2018**), all proposed forms of attitudes are primarily cognitive. Even emotional associations represent a specific form of cognition as they are underpinned by beliefs (**Cerulo 2018**). In addition, the aim of this paper is not to unpack the behavioural component of attitudes because in our model it does not represent evaluative statements about *ALE*, but rather actual intention to learn, which is a different phenomenon (**Baert, De Rick, and Van Valckenborgh 2006; Kyndt et al. 2013b**).

## Method

Our analysis draws from a newly gathered survey focused on behavioural factors of adults' participation in lifelong learning. The survey was based on a representative stratified random sample ( $n = 1200$ ) in which the gender, age 25-69 years, education and region ratio of the overall Czech population were reflected. Data collection was conducted in the Czech Republic during September and October 2019, before the COVID-19 pandemic spread, by a professional agency based on the Computer Assisted Personal Interviewing (*CAPI*) method. Relevant respondents, who agreed to participate in the research, were verbally asked questions and their responses were recorded on a digital device by

the interviewers. Data collection was financed by an internal university fund for the development of a research organisation. In all phases of the survey process, emphasis was placed on the ethical principles of research, especially anonymity respecting the **ICC/ESOMAR International Code (2022)**.

For our research, we developed the Attitudes toward adult learning and education questionnaire (*AtoALE*) that works with three batteries of items constructed according to the theoretical model presented above. Each battery focuses on the three different forms of attitudes discussed above - F1: Personal declarative dimension, F2: Public declarative dimension, and F3: Personal non-declarative dimension, which is divided into F3p (positive emotions) and F3n (negative emotions). Items for the first two dimensions, which focused on evaluative statements related to the participation of individuals in ALE or the characteristics of adult learning systems, were based on our previous qualitative research in the field with both national stakeholders and adults from social groups at risk (**Karger et al. 2022**). The total of 27 items was divided into two dimensions and assessed as a validity check by a panel of 6 researchers from two universities. Based on their feedback, the number of items was reduced to 19. Items for the personal nondeclarative dimension were built on **Pekrun's (2006)** classification of emotions to education. His conception classifies two groups of emotions based on their dominant meaning: (1) positive emotions (enjoyment, hope, pride, relief), and (2) negative emotions (anger, shame, hopelessness and boredom). Utilising this framework, we were able to measure adults' primary emotional association with further learning and education.

The applied version of *AtoALE* contains 26 items (See Supplementary **Table 1**) using a 6-point Likert scale (1 = strongly disagree; 2 = rather disagree; 3 = slightly disagree; 4 = slightly agree; 5 = rather agree; 6 = strongly agree). As the questionnaire reflects positive and negative attitudes, we decided to use a scale with an even (rather than odd) number of points to prevent respondents from using the middle point on the scale. Furthermore, the research instrument was validated on the same sample of respondents using confirmatory factor analysis - *CFA* (**Kyriazos 2018; Roos and Bauldry 2022**). Basic information about the items and factors of the applied instrument can be found in Supplementary **Figure 1** and Supplementary **Table 2**. We found that the research instrument corresponds to the theory described above in terms of factor structure. The *CFA* confirmed theoretically predefined 3-factor solution with the personal non-declarative attitudes factor divided into two sub-factors (positive/negative emotions to *ALE*). The instrument meets commonly required statistical parameters of measurement quality ( $\chi^2 = 1555.221$ ;  $df = 282$ ;  $CFI = 0.937$ ;  $TLI = 0.928$ ;  $RMSEA = 0.061$ ). All factors as well as the complete instrument are reliable. Results of Cronbach's  $\alpha$  show a value 0.895 for F1, 0.835 for F2, 0.929 for F3p, 0.907 for F3n and 0.830 for the Complete model.

Similar to main international surveys concerning lifelong learning *AES* and *PIAAC*, the participation in ALE was measured as an involvement of adults in any formal or nonformal adult education in the period of 12 months before the survey. Following our research aims, a basic descriptive statistical analysis focused on participants and nonparticipants in *ALE* was performed for each item of *AtoALE* individually (Research Question 1). For testing differences between participants and nonparticipants Student's t-test was used based on the pre-obtained result of Levenés test for equality of variances (Research Question 2). Finally, to identify key groups of adults with similar attitudes toward *ALE*, a series of cluster analyses (**Hair et al. 2019**) were employed, with two, three, and four clusters carefully evaluated (Research Question 3). The commonly used K-means algorithm was applied to divide the sample into subgroups based on observed patterns concerning the factor scores of attitudes toward *ALE* (see Supplementary **Figure 1**). Convergence of the final solution was achieved after 21 iterations.

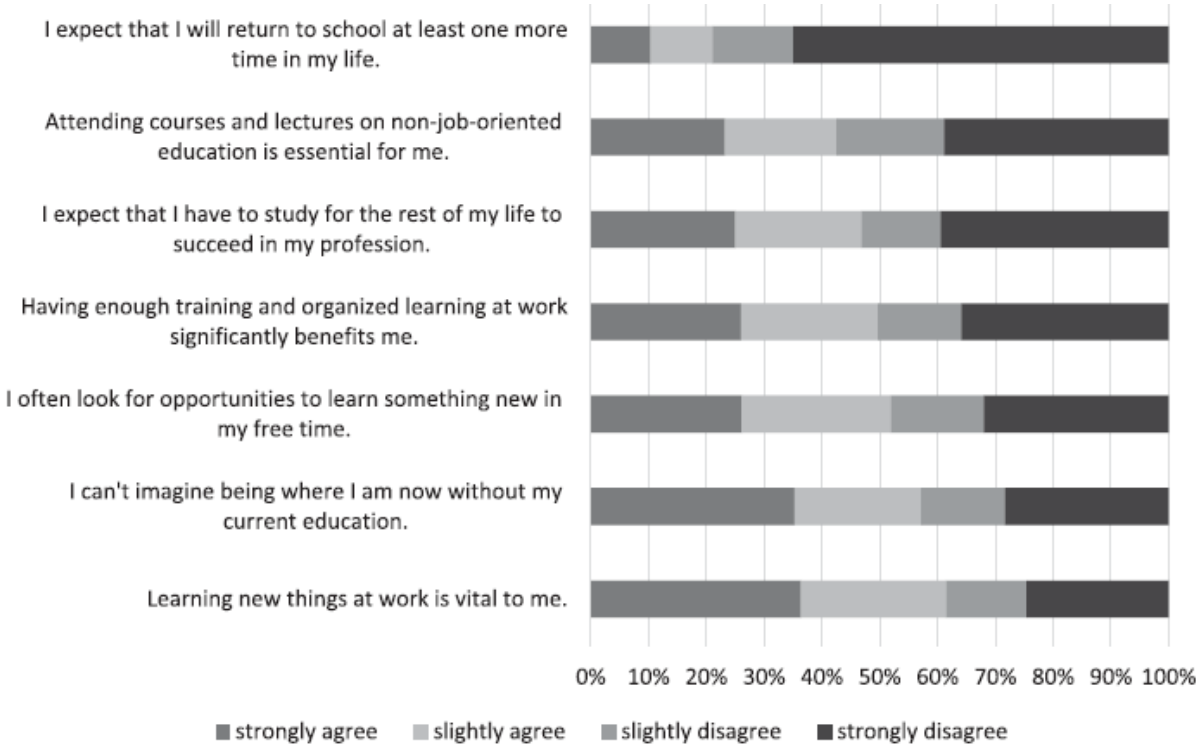
Analytical procedures were realised with the use of IBM SPSS 27. *CFA* was realised using IBM SPSS Amos 27. JASP 0.16.2.0 was used for the calculation of reliability, because it enables calculation of not only Cronbach's  $\alpha$ , but also McDonald's  $\omega$  and Gut-mann's  $\lambda^6$ .

**Results**

In this section, we firstly present the surveys descriptive results necessary to address the first research question. After that, we show data concerning attitudes toward *ALE* between participants and nonparticipants, which serves us to answer our second research question. Finally, we reveal findings from the cluster analysis that are related to our last research question.

Figures 2-4 provide an overview of three categories of attitudes underpinned by Lizardo toward ALE among all respondents based on the degree of their agreement with particular statements as presented to them in questionnaire. Based on this, we can map the general structure of the attitudes in adult population. For better clarity, the least represented (marginal) responses ‘1: strongly disagree’ with ‘2: rather disagree’ on the one hand and ‘5: rather agree’ with ‘6: strongly agree’ on the other are merged into two categories, strongly agree and strongly disagree. The middle categories ‘3: slightly disagree’ and ‘4: slightly agree’ are left unmerged.

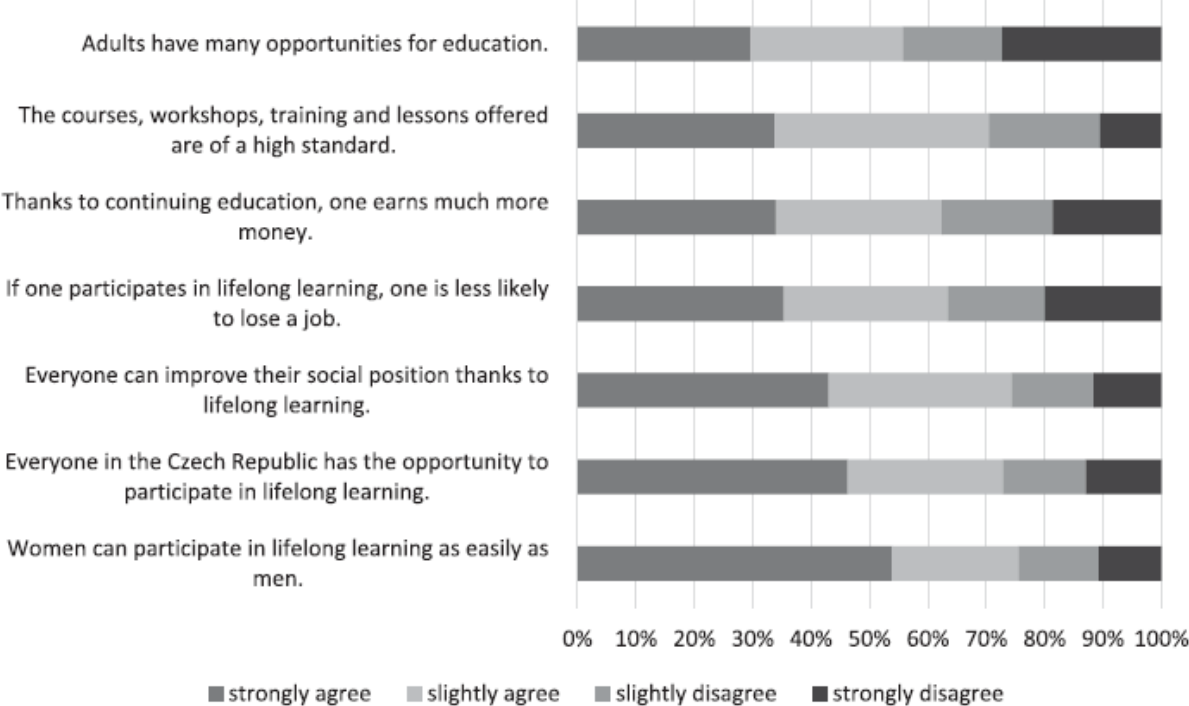
**Figure 2** (Personal declarative attitudes toward *ALE*) shows that approximately 50% of respondents have rather negative than positive personal attitudes toward *ALE*. These negative attitudes are mostly significant regarding expectations about the necessity to continue in formal education across the life course and the importance of non-job-oriented *ALE* for respondents. Furthermore, just 25% of adults strongly expect that they have to study for the rest of their life to succeed in their job. For the vast majority, it is not perceived as a vital activity. On the contrary, almost 60% of respondents agree with the statement that they ‘cannot imagine being where I am now without my current education’ and even more with the statement that ‘learning new things is vital to me.’



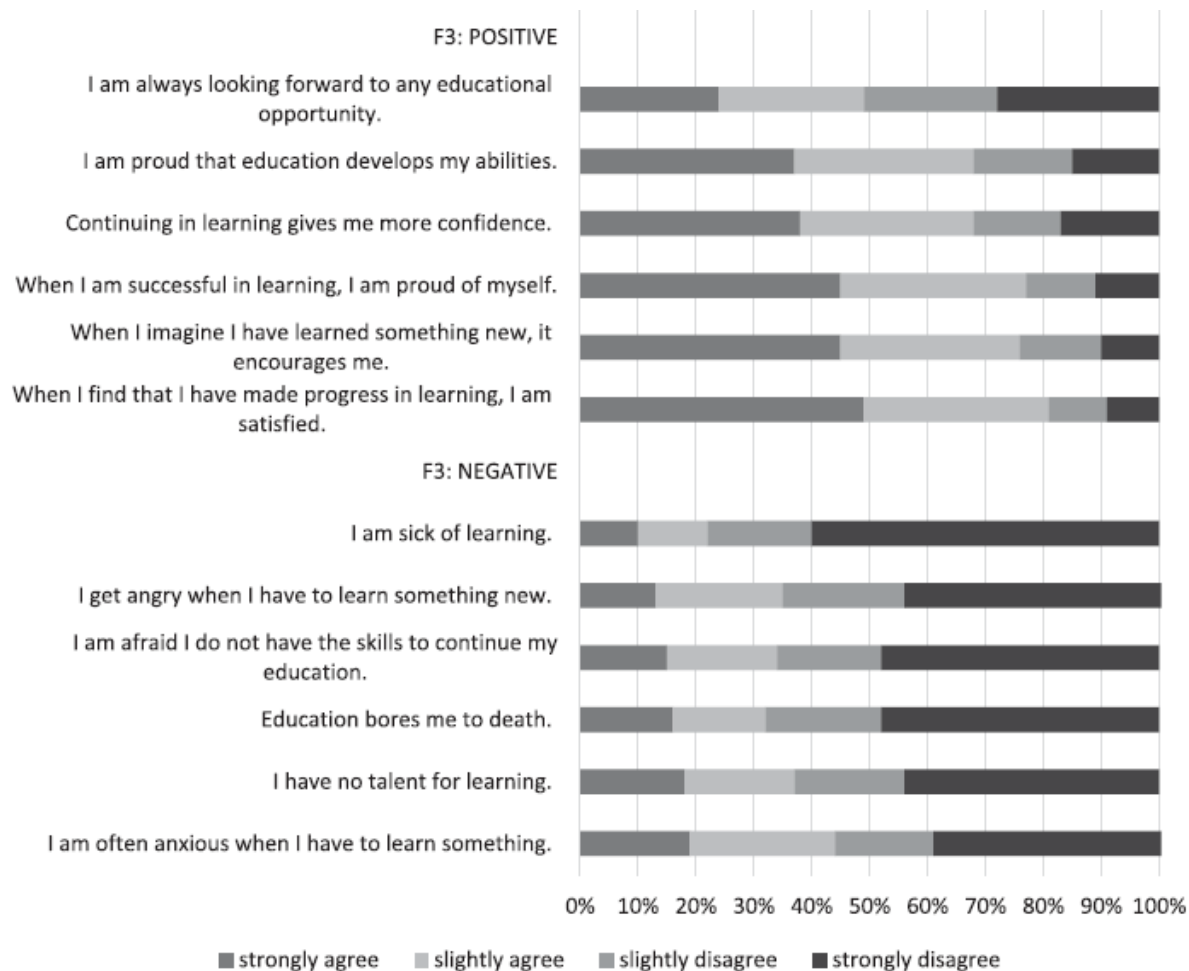
**Figure 2.** Attitudes to personal meaning of *ALE* ( $n = 1200$ ). Results in percent of respondents. The statements are sorted according to the ascending degree of agreement of the respondents.



Attitudes toward the public dimension of *ALE* are more favourable than in the case of personal declarative attitudes. More respondents positively evaluate the adult education system in the Czech Republic. As seen in **Figure 3** (Public declarative attitudes toward *ALE*), over 70% of adults agree that everyone has the opportunity to participate in lifelong learning, and that women can participate without any gender constraints. On the contrary, respondents are the most critical in items focused on evaluating opportunities to participate in education and training.



**Figure 3.** Attitudes to public meaning of *ALE* ( $n = 1200$ ). Results in percent of respondents. The statements are sorted according to the ascending degree of agreement of the respondents.



**Figure 4.** Emotional associations related to *ALE* ( $n = 1200$ ). Results in percent of respondents. The statements are sorted according to the ascending degree of agreement of the respondents.

The last Figure (no. 4) summarises the results for the personal non-declarative dimension. It shows that positive emotional associations with *ALE* are more widespread among adults than negative ones. Especially, feelings of anger and hopelessness concerning learning and education are less prevalent. Instead, the highest occurrence of non-declarative attitudes is typical for the feelings of satisfaction and pride resulting from learning.

### Differences between participants and nonparticipants

The results of differences in attitudes toward *ALE* between nonparticipants and participants are presented in **Table 1** (see Research Question 2). The results show a statistically significant difference across all categories of attitudes.

The highest differences can be found in the category of personal declarative attitudes, where participants are overall more positive regarding *ALE*. Only minor exception represents the item focused on a return to school during their life. In this case, the difference between nonparticipants is minor (0.47 mean difference) but still statistically significant.

**Table 1.** Differences in attitudes between participants ( $n = 392$ ) and nonparticipants ( $n = 808$ ).

	Mean		Std. deviation		Student's t-test for equality of means				
	Participation in ALE		Participation in ALE		t	p	Mean difference	95% confidence interval of the difference	
	yes	no	yes	no				Lower	Upper
F1									
F1.1: Attending courses and lectures on non-job-oriented education is essential for me.	4.15	2.69	1.46	1.44	16.359	0.000	1.46	1.28	1.63
F1.2: Having enough training and organised learning at work significantly benefits me.	4.26	2.86	1.40	1.51	15.863	0.000	1.40	1.23	1.58
F1.3: I often look for opportunities to learn something new in my free time.	4.12	3.08	1.31	1.47	12.387	0.000	1.04	0.88	1.21
F1.4: Learning new things at work is vital to me.	4.69	3.32	1.17	1.54	17.137	0.000	1.37	1.21	1.53
F1.5: I can't imagine being where I am now without my current education.	4.40	3.32	1.41	1.62	11.828	0.000	1.08	0.90	1.26
F1.6: I expect that I have to study for the rest of my life to succeed in my profession.	4.24	2.69	1.42	1.51	17.361	0.000	1.55	1.38	1.73
F1.7: I expect that I will return to school at least one more time in my life.	2.58	2.11	1.57	1.42	5.059	0.000	0.47	0.29	0.66
F2									
F2.1: The courses, workshops, training and lessons offered are of a high standard.	4.48	3.77	0.97	1.20	11.032	0.000	0.71	0.58	0.84
F2.2: Adults have many opportunities for education.	4.25	3.30	1.28	1.44	11.553	0.000	0.95	0.79	1.11
F2.3: Everyone in the Czech Republic has the opportunity to participate in lifelong learning.	4.51	4.05	1.29	1.36	5.580	0.000	0.46	0.30	0.62
F2.4: Everyone can improve their social position thanks to lifelong learning.	4.57	3.98	1.13	1.32	7.569	0.000	0.59	0.44	0.74
F2.5: Women can participate in lifelong learning as easily as men.	4.78	4.25	1.28	1.38	6.585	0.000	0.53	0.37	0.69
F2.6: If one participates in lifelong learning, one is less likely to lose a job.	4.28	3.63	1.31	1.39	7.930	0.000	0.65	0.49	0.81
F2.7: Thanks to continuing education, one earns much more money.	4.15	3.67	1.34	1.38	5.730	0.000	0.48	0.32	0.65
F3p									
F3p.1: I am always looking forward to any educational opportunity.	4.06	3.10	1.22	1.38	12.361	0.000	0.97	0.81	1.12
F3p.2: When I find that I have made progress in learning, I am satisfied.	5.03	4.05	0.87	1.28	15.549	0.000	0.98	0.85	1.10
F3p.3: I am proud that education develops my abilities.	4.76	3.66	1.01	1.32	15.840	0.000	1.09	0.96	1.23
F3p.4: When I am successful in learning, I am proud of myself.	4.85	3.94	0.96	1.31	13.618	0.000	0.91	0.78	1.04
F3p.5: Continuing in learning gives me more confidence.	4.75	3.61	1.00	1.40	16.214	0.000	1.14	1.00	1.28
F3p.6: When I imagine I have learned something new, it encourages me.	4.88	3.94	0.94	1.30	14.300	0.000	0.94	0.81	1.07
F3n									
F3n.1: I get angry when I have to learn something new.	2.36	3.12	1.22	1.41	-9.641	0.000	-0.76	-0.92	-0.61
F3n.2: I am afraid I do not have the skills to continue my education.	2.22	3.18	1.23	1.46	-11.872	0.000	-0.96	-1.12	-0.80
F3n.3: I have no talent for learning.	2.33	3.34	1.31	1.51	-11.853	0.000	-1.01	-1.17	-0.84
F3n.4: Education bores me to death.	2.08	3.18	1.18	1.51	-13.767	0.000	-1.10	-1.25	-0.94
F3n.5: I am often anxious when I have to learn something.	2.65	3.31	1.44	1.53	-7.187	0.000	-0.66	-0.84	-0.48
F3n.6: I am sick of learning.	1.81	2.72	1.10	1.49	-11.836	0.000	-0.91	-1.06	-0.76

Note. The larger the mean, the higher the rate of agreement with the item;  $t$  = test statistic of  $t$ -test;  $p$  = statistical significance.

Also, the results in the non-declarative dimension of attitudes reveal a significant difference between participants and nonparticipants. Nonparticipants associate more negative and less positive emotions with education and learning. The smallest differences in means scores between both groups are in public declarative attitudes toward *ALE* (0.48-0.95 mean difference).

Overall, the results of this analysis indicate that differences in attitudes between all participants and nonparticipants of *ALE* are profound, especially across personal domains (both declarative and non-declarative) and therefore can play an important factor in participation. However, we do not consider that all nonparticipants (or participants) are similar. For this reason, we employed cluster analysis to more deeply elaborate differences in attitudes toward *ALE* between these two groups (see Research Question 3).

### Cluster analyses

Cluster analysis was based on overall means of factors F1, F2, F3p, F3n. Three solutions (for two, three and four clusters) were carefully examined. The final 4-cluster solution was chosen on the basis of an expert assessment with regard to the theoretical background described above, as well as to the size and variability of each cluster. We were looking for the best interpretable version of clusters based on our aim. In this regard, we preferred a smaller number of clearly distinguishable clusters. At the same time, we wanted to avoid a solution in which one of the clusters made up less than 10% of the sample. The final four cluster solution meets these criteria. **Table 3** provides the basic results of the analysis.

The four-cluster solution also represent a typology of adults according to their prevalence attitudes toward *ALE*. As can be seen in **Table 2**, these are:

- (1) Adults with positive attitudes toward *ALE*. This cluster includes respondents with overall positive attitudes across all three factors. Also, it is the biggest cluster, containing 30.8% of respondents. Adults from this cluster have very positive emotional associations with *ALE* ( $M = 5.14$ ) and further the highest score for personal and public meaning of lifelong learning.
- (2) Adults with personal obligation toward *ALE*. With 30.2% of respondents, this cluster represents the second biggest group of respondents. Contrary to previous one, adults from this group score much lower in personal declarative factor of attitudes ( $M = 2.61$  vs 4.43). In addition, their view of public dimension of *ALE* is also more critical, and they have fewer positive emotions connected to learning and education.
- (3) Adults that recognise public value of *ALE*. The third cluster is much smaller and contains 20.3% of respondents. It is mainly typical by high score in public declarative dimension ( $M = 4.24$ ). Furthermore, adults from this group have high score of positive emotional associations with *ALE*. However, their attitudes in personal dimension are more critical than in the case 'adults with positive attitudes' and they have higher score in negative emotions toward learning and education.
- (4) (4)Adults with mainly negative attitudes toward *ALE*. The last group is the smallest (18.7%) and is composed of adults with the lowest score in all factors, except negative emotions, which they perceived most intensively ( $M = 4.42$ ).

**Table 2.** Average score for attitudes in all clusters.

Factor	Label	Cluster			
		"Positive attitudes" ( $n = 370$ ) $M$	"Personal obligations" ( $n = 362$ ) $M$	"Public value" ( $n = 244$ ) $M$	"Negative attitudes" ( $n = 224$ ) $M$
F1	Personal attitudes	4.43	2.61	3.81	1.76
F2	Public meaning	4.78	3.54	4.24	3.25
F3p	Emotional associations (positive)	5.14	3.65	4.18	2.73
F3n	Emotional associations (negative)	1.67	2.58	3.59	4.42

$M = \text{Mean}$ .

**Table 3.** Sociodemographic characteristic of the clusters.

	n	Cluster							
		"Positive attitudes" ( $n = 370$ )		"Personal obligations" ( $n = 362$ )		"Public value" ( $n = 244$ )		"Negative attitudes" ( $n = 224$ )	
		%	n	%	n	%	n	%	
Gender	Male	169	45.7	181	50.0	114	46.7	134	59.8
	Female	201	54.3	181	50.0	130	53.3	90	40.2
Age	25–34	119	32.2	53	14.6	74	30.3	40	17.9
	35–44	95	25.7	90	24.9	57	23.4	47	21.0
	45–54	72	19.5	84	23.2	46	18.9	45	20.1
	55–64	64	17.3	92	25.4	53	21.7	62	27.7
	65–69	20	5.4	43	11.9	14	5.7	30	13.4
Education	ISCED 2 or lower	20	5.4	25	6.9	25	10.2	64	28.6
	ISCED 3c	92	24.9	151	41.7	99	40.6	118	52.7
	ISCED 3ab	150	40.5	139	38.4	90	36.9	36	16.1
	ISCED 5–8	108	29.2	47	13.0	30	12.3	6	2.7
Participation in ALE	yes	225	60.8	67	18.5	85	34.8	15	6.7
	no	145	39.2	295	81.5	159	65.2	209	93.3

Moreover, the clusters differ not only in the prevailing attitudes of adults toward *ALE* but also in their sociodemographic content. **Table 3** shows the main characteristics of clusters according to gender, age, education and participation in *ALE* among respondents. Results reveal a clear difference between clusters with participation in *ALE*. Apparently, the second ('personal obligations' cl.) and the last cluster ('negative attitudes' cl.) are mainly composed of nonparticipants (81.5 vs 93.3%). However, we should notice that they still make up only 62% of all nonparticipants in our sample together. It means we cannot claim that nonparticipants can be found only in those two clusters; they are included in the other two as well. Regarding gender, we can see bigger differences only in the case of adults with negative attitudes toward *ALE*. Males form a higher proportion of this cluster than females (59.8 vs 40.2%). Clusters with the highest proportion of older adults are again those with a more negative approach to *ALE*. In these groups, adults over 55 years represent 41% ('negative attitudes' cl.), respectively 37% ('personal obligations' cl.) of respondents. On the other hand, the highest number of adults with university education (ISCED 5-8) fall into the cluster of respondents with prevalently positive attitudes toward *ALE*. Their proportion in this cluster is twice as big as in the second closest clusters - i.e. adults who highlight the public value of *ALE*.

## Discussion

The initial aim of this paper was to conceptualise attitudes toward *ALE* based on the model of cultural analysis developed by **Lizardo (2017)** and test the validity and reliability of this conceptualisation using a representative survey of the Czech adult population. We found that this conception is a useful theoretical framework that helps us cover various forms of attitudes that adults can have toward lifelong learning. In addition, we found that the employed questionnaire '*AtoALE*' is a valid and reliable research instrument.

Based on the data from our survey, we showed that adults' attitudes toward *ALE* are highly complex and unevenly distributed across the population. Furthermore, the results suggest that despite the significant differences between participants and nonparticipants, the attitudes are more nuanced than we could expect based on the previous literature in the field (e.g. **Illeris 2006; Kyndt et al. 2013a, 2013b; Rubenson 2010**).

Firstly, although lifelong learning has been presented as a crucial practice for enhancing employability and improving the quality of life of adults by many international organisations (e.g. **ILO 2021; OECD 2019**), approximately 50% of them have at least slightly negative attitudes toward *ALE* on the personal level. These attitudes are more common on topics of a return to school desks and non-job-oriented education than in the case of informal learning, which is considered vital by almost two-thirds of respondents. Overall, these findings do not support robust internalisation of the relevance and benefits of organised adult education on an individual level among the adult population.

Secondly, in comparison to the previous dimension, the public side of *ALE* is evaluated more positively. Over 75% of adults consider the adult learning system in the Czech Republic as an equal in its access to learning opportunities, including women, as well as an instrument for improving social position (chances for social mobility). These attitudes are somewhat surprising considering the high level of inequality based on attained education and economic status (**Kalenda, Kočvarová, and Vaculíková 2020**), low level of women support in job-oriented training by employers (**Vaculíková, Kalenda, and Kočvarová 2021**) and high perceived barriers to job-oriented training among workers in the Czech Republic (**Kočvarová, Vaculíková, and Kalenda 2021**).

One reasonable explanation for these attitudes is that the Czech adult population highly values equality across the labour market and educational system and therefore believes that access to *ALE* is equal. Another explanation, compatible with the previous one, is that most of these inequalities are hardly visible to most people. For instance, there are only minor differences in participation in nonformal education based on the profession. However, the inequalities are striking once an individual is out of the job market (**Kalenda, Kočvarová, and Vaculíková 2020**).

The final form of attitudes, personal non-declarative, is typical of the dominance of positive emotional associations to adult education and training. Over two-thirds of respondents stated positive feelings like enjoyment, hope, and pride linked to lifelong learning. In comparison to the personal declarative dimension, emotional associations are more positive. A reason for that might be in the overall positive evaluation of previous education by adults, even from social groups with low-level of education. Contrary to findings from other studies (**Illeris 2006; Kyndt et al. 2013a, 2013b; Lavrijsen and Nicaise 2017; Rubenson 2010**), low-educated adults, as well as older adults in the Czech Republic, frequently highlight the sense of proudness and satisfaction with their initial education (**Karger et al. 2022**). This can translate into strong embodied positive feelings about learning among vast majority of adults.

Our second aim targeted whether there are differences in attitudes toward *ALE* between participants and nonparticipants? To this topic, we found significant differences on the two levels. At first, on the level of all participants and nonparticipants of *ALE*. In this case, participants are overall more positive concerning *ALE* in personal dimension, both declarative and non-declarative. In the public dimension, the differences are minor but still favour a more positive evaluation from participants.

Second, we found differences among nonparticipants themselves on the level of identified clusters. A big group of nonparticipants is a part of the cluster of adults with slightly negative attitudes toward *ALE*, especially in the personal declarative dimension (37% of all nonparticipants). Also, another group of nonparticipants falls into the cluster with strong negative declarative personal attitudes accompanied by negative emotions (25% of all nonparticipants). Interestingly, the remaining part of nonparticipants have either positive attitudes toward further learning (18% of all nonparticipants) or see its public value (20% of all nonparticipants). In this context, they do not differ in their cultural evaluation of *ALE* as a majority of adults involved in lifelong learning (79% of all participants).

We can speculate that part of nonparticipants do not attend *ALE* primarily due to their behavioural characteristics that are considered by some authors (**Boeren 2016, 2017; Kyndt et al. 2013a, 2013b; Lavrijsen and Nicaise 2017**) as a crucial precondition of participation. These nonparticipants probably do not have enough educational opportunities, or lack resources that prevent them from participating. Based on these findings, we can support **Baert, De Rick, and Van Valckenborgh's (2006)** claim that learning intentions are sometimes not enough to translate into actual participation. Like learning intention, if positive attitudes do not meet structural opportunities, they are not a sufficient condition for participation. It is important to note that this interpretation is specific to the context of *ALE* in the Czech Republic, where access to organised learning is largely determined by one's participation in the labour market. Research has shown that adults who are excluded from the economy have significantly lower chances of engaging in any form of *ALE*, regardless of their attitudes towards it (**Kalenda, Kočvarová, and Vaculíková 2020**).

In the last step of our analysis, we answered the question of who the key groups of adults are, based on their prevailing attitudes? We identify four main clusters of adults with distinctively different attitudes - i.e. adults: (1) with positive attitudes toward *ALE*, (2) with personal obligations toward *ALE*, (3) recognise the public value of *ALE*, and (4) with negative attitudes toward *ALE*. However, these are basic results, more space including detailed analysis should be given this question in further studies.

In line with current literature (**Boeren 2016, 2017; Rubenson 2010; Lavrijsen and Nicaise 2017**) regarding factors of participation, the cluster with the most negative attitudes consists mainly of low-educated and older adults, while the cluster with the most positive attitudes has a higher proportion of respondents with a university degree and include more youth adults. Sociodemographic differences between the 'personal obligations' and 'public value' clusters are insignificant except for the number of *ALE* participants favouring the last-mentioned group. Based on that, we can hypothesise that more overall positive attitudes to *ALE* and more positive emotions related to learning are an outcome of a higher proportion of participants in the cluster. For this interpretation, we can find support in previous studies (e.g. **Desjardins, Rubenson, and Milana 2006; Tuijnman 1991**) identified that participants have a more positive relationship to *ALE* than nonparticipants.

## Conclusions

In this analysis, we have outlined a novel understanding of attitudes toward *ALE* based on three dimensions, according to **Lizardo (2017)** conception of cultural analysis: personal declarative, public declarative and personal non-declarative. Beyond that, we empirically validated the research instrument (*AtoALE*), drawing on this triadic theoretical conception. We found that it is a valid and reliable research instrument that can further expand our understanding of multilayer attitudes toward *ALE*. In this regard, we contribute to current research by expanding a variety of theoretical approaches and disponible research instruments. Furthermore, we also contribute to contemporary empirical research regarding participants and nonparticipants in *ALE*. Our findings highlight the high importance of positive attitudes toward lifelong learning, especially on the personal level, for involvement in *ALE* activities.

Nevertheless, our results indicate that the connection between attitudes and participation is not straightforward. Rather than postulating equal signs between participation and positive attitudes toward *ALE*, we must consider remaining important factors that intervene in adults participation, like other behavioural features (motivation/barriers to adult education), factual opportunities for participation in the educational system, among employers and civic sphere (Meso level factors of participation), as well as macro-structural features of participation (e.g. welfare state investment into active labour policy measures). Together, they represent a more holistic picture of participation in *ALE* (**Boeren 2016, 2017**).

Therefore, we propose that future research in this area should focus not only on further cultural adaptation of *AtoALE* in other countries but also on investigating further interconnections between: (1) attitudes and participation in various forms of *ALE*; (2) attitudes and other behavioural factors of participation (e.g. motivation to education and learning and barriers toward *ALE*), (3) attitudes and other meso- and macrolevel variables of participation.

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