



## Flemish Teachers' Age-related Stereotypes: Investigating Generational Differences

Kendra Geeraerts, Jan Vanhoof & Piet Van Den Bossche

To cite this article: Kendra Geeraerts, Jan Vanhoof & Piet Van Den Bossche (2019): Flemish Teachers' Age-related Stereotypes: Investigating Generational Differences, Journal of Intergenerational Relationships, DOI: [10.1080/15350770.2019.1701603](https://doi.org/10.1080/15350770.2019.1701603)

To link to this article: <https://doi.org/10.1080/15350770.2019.1701603>



Published online: 20 Dec 2019.



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



View related articles [↗](#)



View Crossmark data [↗](#)



## Flemish Teachers' Age-related Stereotypes: Investigating Generational Differences

Kendra Geeraerts<sup>a,b</sup>, Jan Vanhoof<sup>a</sup>, and Piet Van Den Bossche<sup>a,c</sup>

<sup>a</sup>University of Antwerp, Antwerp, Belgium; <sup>b</sup>Karel de Grote university college, Antwerp; <sup>c</sup>University of Maastricht, Maastricht, the Netherlands

### ABSTRACT

This quantitative study examines the existence of Flemish teachers' age-related stereotypical beliefs and investigates differences between generational cohorts (N = 558). Results indicated that all generational cohorts studied attribute being interested in technological change, making use of ICT, having creative and innovative ideas, and considering another profession to younger teachers. At the same time, teachers in all cohorts perceive taking a leadership role, being loyal, being confident, being conservative, having smooth classroom management skills, and having extensive knowledge of the subject matter as characteristics of older teachers. Many characteristics, in terms of attitudes, are not clearly attributed to a certain age group of teachers.

### KEYWORDS

Stereotypes; teachers; intergenerational relationships; generations

## Introduction

The aging workforce is an increasingly important topic. Older workers need to remain in the workforce longer to sustain retirement systems (CEDEFOP, 2012; Compton et al., 2014). The so-called “digital natives” recently entered the workforce, which, in combination with the aging workforce, leads to greater age diversity within work teams. In organizational contexts, it is becoming increasingly important to understand and address age stereotypes in the workplace in order to avert negative outcomes of age diversity in organizations (Fasbender, 2016; Fasbender & Deller, 2017). Furthermore, within the context of school teams, the topic of age diversity in terms of teacher generations has recently garnered more attention (e.g., Geeraerts, Vanhoof & Van den Bossche, 2016; Geeraerts, Van den Bossche, Vanhoof, & Moolenaar, 2017; Brücknerová & Novotný, 2016; Novotný & Brücknerová, 2014). Within age-diverse teacher teams, a process of social categorization, as described by Tajfel and Turner (1986), can be at play, meaning that teachers tend to associate with colleagues who are supposed to be similar, for instance, based on age. This also relates to literature on generations of teachers, which groups teacher teams into different age cohorts based on chronological age (Edge, 2014).

**CONTACT** Kendra Geeraerts  [kendra.geeraerts@kdg.be](mailto:kendra.geeraerts@kdg.be)  University of Antwerp, Antwerp, Belgium; Karel de Grote university college, Antwerp

© 2019 Taylor & Francis Group, LLC

A qualitative study indicated that young and old teachers have certain beliefs about their colleagues in the same and other generational cohorts and distinguished perceptions in terms of knowledge, skills, and attitudes of teachers (Geeraerts et al., 2016). These beliefs about teachers of certain age groups can have positive or negative consequences for intergenerational teacher interactions (Geeraerts et al., 2016). When beliefs about characteristics, attributes, and behaviors of members of a certain group are generalized, these beliefs can be labeled as stereotypes (Hilton & von Hippel, 1996). Stereotypical beliefs generate expectations that can lead to self-fulfilling prophecies. This might induce individuals to behave or act in conformity with these stereotypes, which, in turn, potentially reinforces stereotypes (Fasbender, 2016; Fasbender & Deller, 2017; Levy & Leifheit-Limson, 2009). For instance, when older teachers are perceived as being more conservative and less likely to make use of innovative teaching methods, teachers of this age group might base their behavior on these beliefs. Thus, age stereotypes also affect how individuals interact in the workplace (Hedge, Borman, & Lammlein, 2006).

Many researchers have emphasized the fact that generational stereotypes often lack sufficient empirical evidence (e.g., Costanza & Finkelstein, 2015; Lyons, Urick, Kuron, & Schweitzer, 2015; Twenge, 2010). Some studies have found more similarities than differences across generations (e.g., Ferres, Travaglione, & Firms, 2003; Wong, Gardiner, Lang, & Coulon, 2008). In addition, age stereotypes are often associated with negative feelings between workers of different generations, which, in turn, can negatively affect organizational climate (Kunze, Boehm, & Bruch, 2011); however, as it happens, positive stereotypes exist as well, such as the belief that older workers are more loyal, committed, and reliable (Posthuma & Campion, 2009). A recent study, by Fowler and Gasiorek (2018), showed that positive stereotypes are beneficial for facilitating intergenerational interactions. Considering different generations of teachers and paying attention to differences in how these generations experience their work are important to the development of a strong and sustainable professional community of teachers (Edge, 2014; Stone-Johnson, 2017). To address this issue, studies with a main focus on age are urgently needed (Truxillo, Cadiz, & Hammer, 2015).

Notwithstanding that research on age stereotypes already exists within organizational contexts (e.g., Chiu, Chan, Snape, & Redman, 2001; Henkens, 2005), there seems to be a clear gap in research on age stereotypes within teacher teams. Previous research has investigated teachers' perceptions of the knowledge, skills, and attitudes of their colleagues using a qualitative research method (Geeraerts et al., 2016). In this study, age stereotypes within teacher teams are seen as generalized beliefs harbored by teachers regarding the knowledge, skills, and attitudes of their colleagues of certain age groups. Using a quantitative research approach, this study examines the extent to

which teachers attribute characteristics – in terms of knowledge, skills, and attitudes – to older or younger teachers; therefore, this study aims to capture the existence of stereotypical beliefs in teacher teams. In addition, differences between teachers of different generations, in terms of attributing teachers' characteristics (knowledge, skills, and attitudes) to certain age groups, are investigated.

## **Theoretical framework**

### ***Generational diversity***

The first conceptualization of generations was provided by Mannheim (1952), who suggested that members of a certain generation are characterized by similar ways of interpreting their environment as a consequence of mutual social experiences and shared historical events during their lives. Eyerman and Turner (1998) modified Mannheim's original conceptualization of generations by defining a generation as "a cohort of persons passing through time who come to share a common habitus, hexis, and culture, a function of which is to provide them with a collective memory that serves to integrate the cohort over a finite period of time" (p. 93). A generation can be seen as a group of individuals that moves through stages of life within a certain historical context (Ropes & Ypsilanti, 2016). Generation is a context-specific multidimensional construct (Ropes & Ypsilanti, 2016). A difficulty in defining generational cohorts is that there is no consensus on the boundaries of a cohort (Lyons & Kuron, 2014; Ropes & Ypsilanti, 2012). Within the context of teacher teams, three predominant generations of teachers coexist and are referred to as baby boomers (1946–1965), generation X (1966–1980), and generation Y (1981–2003) (Edge, 2014). Other studies on generations of teachers have used similar boundaries but labeled these generational cohorts as old, middle, and young teachers (Geeraerts et al., 2016, 2017; Novotný & Brücknerová, 2014). The fact that different generations of teachers operate together within school teams leads to a certain level of generational diversity. Generational diversity is closely related to age diversity, since age is a key aspect of how a cohort is defined (Ropes & Ypsilanti, 2016).

On the one hand, it is argued that generational diversity promotes a broader range of expertise and knowledge within a team (Gerpott, Lehmann-Willenbrock, & Voelpel, 2017). These knowledge supplies refer to the variety of knowledge that teachers of different generations possess, and these domains of knowledge might differ depending on the generational cohort (Geeraerts et al., 2016). On the other hand, generational diversity can also engender misunderstandings between individuals of different generations and can therefore result in intergenerational conflict and the formation of in- and out-group categorizations and stereotypes (Kicheva, 2017).

### ***Young and old, “them” and “us”?***

The idea of how individuals perceive members of their own generational cohort and members of another generational cohort is related to a process of group categorization. Tajfel and Turner (1986) refer to this process of group categorization as social identity theory, also known as the self-categorization theory (Oakes, Haslam, & Turner, 1994). This theory asserts that the perceptions and behaviors of individuals toward themselves and toward others are an outcome of in-group and out-group categorizations. To achieve positive self-esteem and a positive self-image, members of the in-group harbor more favorable beliefs about their in-group members and more negative beliefs about out-group members. Dencker, Joshi, and Martocchio (2007) applied these in- and out-group dynamics to age groups within a work context. Consequently, individuals might also identify themselves with others based on age features. This implies that members of the same age groups will be perceived as in-group members and that members of the other age groups will be considered out-group members. Hassell and Perrewé (1995) found that, as expected, older workers’ beliefs about older workers are more positive than young workers’ beliefs but that young workers also seem to have mainly positive beliefs about older workers. The older the worker, the more favorable the beliefs about older colleagues regarding adaptability and work effectiveness (Chiu et al., 2001). According to Finkelstein, Burke, and Raju (1995) young workers seem to have less favorable beliefs about older workers, especially when they rate old and young workers concurrently and when specific information about the workers is missing. This implies that teachers might also think in terms of “them” and “us” when it comes to age and that teachers might hold more positive beliefs about colleagues of their own generation (in-group) than about colleagues of other generations (out-group).

### ***Age-related stereotypes in the workplace***

Research literature provides different conceptualizations of stereotypes. Hilton and von Hippel (1996) define stereotypes as beliefs about the characteristics, attributes, and behaviors of members of a particular group. McGarty, Yzerbyt, and Spears (2002) refer to stereotypes as perceptions of groups. Age stereotypes are also defined as “simplified, undifferentiated portrayals of age groups that are often erroneous, unrepresentative of reality, and resistant to modification” (Schulz, Noelker, Rockwood, & Sprott, 2006, p. 43). In contrast to the first definitions, the latter definition questions the accuracy of stereotypes. In terms of the accuracy of stereotypes, Judd and Park (1993) found that stereotypes of in-groups are more accurate than stereotypes of out-groups. Stereotypes of out-groups were found to be more exaggerated and overgeneralized (Judd & Park, 1993). The accuracy of stereotypes, however, is often neglected in the definition

of stereotypes. Stereotypes are mostly described as beliefs about groups held by individuals, but the accuracy of these stereotypes is seldom taken into account (Judd & Park, 1993; McGarty et al., 2002).

Stereotypes can be seen as sociocultural and group-level phenomena and are also linked to attitudes and prejudices. Age stereotypes are generalizations based on the age-group membership of individuals, such as believing that older workers in general are less flexible or are more dependable (Cadiz, Pytlovany, & Truxillo, 2017). A reason that individuals form stereotypes can be found in the idea that treating individuals as group members saves energy because all diverse and detailed information related to these individuals can be ignored (McGarty et al., 2002).

The majority of research on the topic of age stereotyping in the work context refers especially to older workers (e.g., Finkelstein, Ryan, & King, 2012; Henkens, 2005; Ng & Feldman, 2012; Posthuma & Campion, 2009). Research focusing on stereotypes of younger workers remains underexplored (Cadiz et al., 2017). As expected, stereotypes often refer to perceptions or attitudes and have negative connotations. Posthuma and Campion (2009) describe the stereotype that older workers have lower ability, are less motivated, and are less productive than younger employees. Another stereotypical belief relates to the idea that older workers are less adaptable, less flexible, more resistant to change, and less energetic than their younger counterparts (Posthuma & Campion, 2009; Taylor & Walker, 1994). In addition, older workers appear to be perceived as having a lower ability to learn than younger colleagues and as being less willing to participate in training and career development activities (Ng & Feldman, 2012). At the same time, the literature suggests that there are also positive stereotypes associated with older employees, such as being more stable, dependable, honest, trustworthy, loyal, reliable, and committed to their job (Bal, Reiss, Rudolph, & Baltes, 2011; Marcus, Fritzsche, Le, & Reeves, 2016; Posthuma & Campion, 2009; Taylor & Walker, 1994). Stereotypes of younger workers are often found to be more positive than those of older workers (Perry, Hanvongse, & Casoinic, 2013).

The above-described stereotypes mainly encompass perceptions or beliefs about the attitudes of older or younger workers in the workplace; however, beliefs about the knowledge and skills attributable to certain generational cohorts might also exist within workplaces. For instance, within teacher teams, which are the focus of this study, a qualitative study by Geeraerts et al. (2016) revealed that older teachers were perceived by younger ones as colleagues with a high level of subject matter knowledge and classroom management skills. These knowledge domains are labeled by Shulman (1987) as content knowledge, general pedagogical knowledge, and pedagogical content knowledge. In terms of their attitudes, however, older teachers were perceived as taking things easy, having low motivation, complaining, being conservative, and being self-confident. According to older teachers, the skills of younger teachers

were characterized by the use of creative and innovative teaching methods and highly developed ICT skills. In terms of their attitudes, however, younger teachers were perceived by older teachers as dropping out easily, being enthusiastic, and interacting closely with students (Geeraerts et al., 2016). Consequently, also within the context of teachers, both positive and negative perceptions of different generational cohorts were discernible. The above-described study of Geeraerts et al. (2016) used a qualitative approach to investigate teachers' perceptions of different generations. More specifically, the study used interview data. In the present study, a quantitative approach is used to unravel the extent to which age-related stereotypical beliefs exist among teachers. Therefore, the following research questions (RQ) are explored. RQ1. To what extent do teachers attribute characteristics – in terms of knowledge, skills, and attitudes – to younger or older colleagues? RQ2. To what extent do generational cohorts differ in attributing knowledge, skills, and attitudes to certain age groups?

## Methodology

### Sample

Data were collected in spring of 2016 from 11 secondary education schools in Flanders (Belgium). Within 10 schools, the average response rate was 88%, ranging from 78% to 98%. In one school, the response rate was 40%. The school principals each received an invitation by e-mail to participate in this study. After confirmation, the school principal received a link to an online survey, which he or she could then forward to the teacher team. The sample encompasses both private and public secondary education schools. In terms of school level, both lower and upper secondary education schools were included, equaling grade 6 until grade 12 in the USA. Hence, the teachers surveyed could hold either a bachelor's or a master's degree.

Quantitative research methods were used. In total, 558 teachers completed the online survey. Of these, 199 teachers were aged 20 to 35 and labeled as the “young cohort”. Meanwhile, 230 teachers were between 36 and 50 years old and labeled as the “middle cohort”. The “oldest cohort” consisted of 129 teachers between 50 and 65 years old. These sample demographics are displayed in Table 1. The boundaries of the generational cohorts used in this study are in line with previous research on teacher generations (Geeraerts et al., 2016, p. 2017).

**Table 1.** Sample demographics.

Generational cohort	Number of teachers	Percentage
Young (20–35 yrs old)	199	35,66%
Middle (36–50 yrs old)	230	41,22%
Old (51–65 yrs old)	129	23,12%
Total	558	100,00%



## Measures

In our survey, we included 18 items on stereotypes, based on previous research conducted by Henkens (2005) and Geeraerts et al. (2016). The original set of items, constructed by Henkens (2005), consisted of Likert-type questions that particularly referred to older workers (e.g., “Older workers are less creative”). Given the idea that stereotypes might exist for teachers across all age groups, and the lack of research on stereotypes of younger workers (Cadiz et al., 2017), we reframed the items into age-neutral characteristics. Examples of these items are “being loyal”, “being reliable”, and “being interested in participating in professional development programs”. In addition, we included characteristics that derived from a qualitative study on the perceptions of knowledge supply and the demands encountered by different generations of teachers (Geeraerts et al., 2016). Examples of these items are “making use of ICT”, “having extensive knowledge of the subject matter”, and “smooth classroom management skills, easily radiating respect and authority”. This resulted in a set of 18 characteristics that covered knowledge, skills, and attitudes of teachers. Respondents were asked to indicate the extent to which a characteristic was applicable to younger or older colleagues. Concretely, the items were measured using a slider scale from 0 to 10, in which 5 indicated a “neutral” position, meaning that the statement could not be attributed to younger or older colleagues. Completely attributing the statement to younger colleagues could be done by moving the slider to 0, whereas 10 indicated attributing the item completely to older colleagues. In other words, the more a response gravitated toward the extreme points on the slider scale, the more the item in question was attributed to a certain age group. Conversely, the more a response approached the middle, or neutral, point, 5, the less the item was attributed to a certain age group. A respondent who moved the slider to 8 on the item “being loyal”, for example, would have indicated that they perceived being loyal as a characteristic of older teachers.

## Data analysis

First, to examine the extent to which teachers attribute features of knowledge, skills, and attitudes to younger or older colleagues, we performed descriptive analyzes (RQ1) using the IBM SPSS Statistics 24 software package. Means and standard deviations were calculated.

To further discover the data, we calculated intraclass correlations to investigate whether there were differences between schools in terms of stereotypical age-related beliefs. Intraclass correlations (ICC) of the items are displayed in Table 2. ICC describe how strongly teachers in the same school resemble each other. ICC of the items range from 0.00 to 0.06, indicating a small and even negligible effect of the school. Accordingly, being a teacher at a certain school



**Table 2.** Intra Class Correlations (ICC).

Item	ICC
Being confident	0.00
Being collegiate	0.00
Being socially skilled	0.01
Exchanging course materials	0.01
Being interested in technological change	0.01
Being flexible	0.01
Being motivated	0.02
Classroom management skills, radiating respect and authority	0.02
Being conservative	0.02
Considering another profession	0.02
Being interested in professional development programs	0.03
Being loyal	0.03
Having creative and innovative ideas	0.03
Having extensive knowledge of the subject matter	0.04
Making use of ICT	0.04
Being enthusiastic	0.05
Taking a leadership role in activities	0.06
Being absent/on a sick leave	0.06

does not explain a significant amount of variance in stereotypical beliefs. Thus, secondary education school teams in Flanders (Belgium) seem to have similar stereotypical beliefs. These findings provide support to our choice of data analysis using ANOVA instead of multilevel regression models to respond to our second research question.

By performing one-way-ANOVA analyses with post-hoc procedures for multiple comparisons, we investigated differences between teachers of different generational cohorts in terms of stereotypical beliefs (RQ2). The Tukey and Games-Howell post-hoc tests were used to compare the mean scores between the different generational cohorts, depending on the significance of Levene's test. Welch's F was calculated for items exhibiting significant differences according to the significance of Levene's test.

## Findings

### *The existence of teachers' age-related stereotypical beliefs*

Our first research question investigates the extent to which teachers attribute teacher characteristics – in terms of knowledge, skills, and attitudes – to younger or older colleagues. The means and standard deviations of items on teacher characteristics are displayed in Table 3. According to these mean values, teachers believe that younger teachers are “being interested in technological change” ( $M = 3.42$ ;  $SD = 1.48$ ), “making use of ICT” ( $M = 3.82$ ;  $SD = 1.27$ ), and “having creative and innovative ideas” ( $M = 4.02$ ;  $SD = 1.34$ ). These items were found to be, to a greater extent, attributable to younger teachers, or more directed toward 0 on the slider scale. Accordingly, these characteristics can be labeled as stereotypes of young teachers. Teachers

**Table 3.** The extent of teachers' age-related stereotypical beliefs (N = 558).

	Knowledge (K), Skill (S), Attitude (A)	M	SD	To a larger extent attributed to ...
Being interested in technological change	A	3,42	1,48	Young (0) ↑
Making use of ICT	S	3,82	1,27	
Having creative and innovative ideas	K, S	4,02	1,34	
Considering another profession	A	4,39	1,55	
Being flexible	A	4,48	1,56	
Being motivated	A	4,70	1,22	
Being enthusiastic	A	4,70	1,05	
Exchanging course materials	A	4,87	1,28	
Being interested in professional development programs	A	4,96	1,33	Neutral (5) ↓
Being collegiate	A	5,19	1,29	
Being socially skilled	A, S	5,22	1,32	
Being absent/on a sick leave	A	5,28	1,45	
Taking a leadership role in activities	A	5,43	1,37	
Being loyal	A	5,64	1,55	
Being confident	A	5,86	1,40	
Being conservative	A	6,05	1,32	
Classroom management skills, radiating respect and authority	S	6,34	1,43	
Having extensive knowledge of the subject matter	K	6,56	1,51	Old (10)

believe that “being conservative” ( $M = 6.05$ ;  $SD = 1.32$ ), “classroom management skills (radiating respect and authority in the classroom)” ( $M = 6.34$ ;  $SD = 1.43$ ), and “having extensive knowledge of the subject matter” ( $M = 6.56$ ;  $SD = 1.51$ ) are to a greater extent related to older teachers, or more directed toward 10 on the slider scale. Aside from the items that can be clearly attributed to a certain age group of teachers, all other items seem to be neutral, since the mean values are close to 5.

### ***Differences between generational cohorts***

Differences between generational cohorts in terms of attributing knowledge, skills, and attitudes to certain age groups are displayed in Table 4. A one-way analysis of variance (ANOVA) was conducted on each characteristic.

Within Table 4, two horizontal lines divide the items into three sections based on the mean values of each generational cohort. The section at the top of the table contains items that are characterized by mean values lower than 5. The section at the bottom of the table contains items characterized by mean values above 5 within all generational cohorts. The middle section contains items for which the mean values fluctuate below and above 5.

**Table 4.** ANOVA of perceptions on age-related teacher characteristics in terms of knowledge, skills, and attitudes (N = 558).

To a larger extent attributed to ...	Teacher characteristics in terms of knowledge (K), skills (S), attitudes (A)	Generational cohort						Anova main effect		Post hoc test	
		Young (1)		Middle (2)		Old (3)		F	P		
		M	SD	M	SD	M	SD				
Young (0)	Mean values of all cohorts < 5	Being interested in technological change (A)	2.89	1.51	3.68	1.34	3.75	1.45	20.77	0.000	1<2 <sup>b</sup> 1<3
		Making use of ICT (S)	3.59	1.36	3.97	1.16	3.89	1.29	5.07 <sup>a</sup>	0.007	1<2 <sup>c</sup>
		Having creative and innovative ideas (K,S)	3.64	1.58	4.15	1.12	4.36	1.15	12.13 <sup>a</sup>	0.000	1<2 <sup>c</sup> 1<3
		Considering another profession (A)	4.32	1.70	4.51	1.41	4.29	1.53	1.21	0.300	/ <sup>b</sup>
Neutral (5)	Mean values varying below and above 5	Being flexible (A)	3.74	1.65	4.71	1.31	5.20	1.35	40.12 <sup>a</sup>	0.000	1<2 <sup>c</sup> 1<3 2<3
		Being motivated (A)	4.22	1.35	4.88	0.97	5.11	1.20	22.98 <sup>a</sup>	0.000	1<2 <sup>c</sup> 1<3
		Being enthusiastic (A)	4.34	1.25	4.79	0.84	5.10	0.85	21.78 <sup>a</sup>	0.000	1<2 <sup>c</sup> 1<3 2<3
		Exchanging course materials (A)	4.45	1.27	5.03	1.20	5.26	1.26	19.04 <sup>a</sup>	0.000	1<2 <sup>c</sup> 1<3
		Being interested in professional development programs (A)	4.61	1.43	5.05	1.31	5.31	1.07	12.90 <sup>a</sup>	0.000	1<2 <sup>c</sup> 1<3
		Being collegiate (A)	4.76	1.25	5.33	1.25	5.59	1.26	19.58	0.000	1<2 <sup>b</sup> 1<3
		Being socially skilled (A, S)	4.85	1.42	5.29	1.15	5.67	1.31	16.34	0.000	1<2 <sup>b</sup> 1<3 2<3
		Being absent/ on a sick leave (-) (A)	5.68	1.33	5.19	1.40	4.81	1.54	15.66	0.000	1>2 <sup>b</sup> 1>3 2>3
		Taking a leadership role in activities (A)	5.32	1.43	5.53	1.36	5.43	1.31	1.18	0.308	/ <sup>b</sup>
	Old (10)	Mean values of all cohorts > 5	Being loyal (A)	5.11	1.59	5.80	1.42	6.16	1.49	19.58	0.000
Being confident (A)			5.87	1.23	5.84	1.42	5.88	1.60	0.05 <sup>a</sup>	0.956	/ <sup>c</sup>
Being conservative (-) (A)			6.07	1.47	6.03	1.15	6.06	1.38	0.06 <sup>a</sup>	0.942	/ <sup>c</sup>
Classroom management skills, radiating respect and authority (S)			6.12	1.32	6.34	1.43	6.69	1.54	6.02 <sup>a</sup>	0.003	1<3 <sup>c</sup>
Having extensive knowledge of the subject matter (K)			6.22	1.42	6.65	1.51	6.94	1.54	9.74	0.000	1<2 <sup>b</sup> 1<3

<sup>a</sup> = Welch F; <sup>b</sup> = Post hoc test Tukey; <sup>c</sup> = Post hoc test Games-Howell

Looking at the upper section, in which characteristics are clearly attributed to younger teachers (meaning that different generational cohorts have a mean value below 5), it can be noticed that young teachers undoubtedly attribute these characteristics to their younger colleagues even more than teachers in older cohorts do. More specifically, in terms of “being interested in technological change”, the mean values of teachers in the youngest cohort

( $M = 2.89$ ,  $SD = 1.51$ ) were found to be significantly lower than the mean values of their colleagues in the middle cohort ( $M = 3.68$ ,  $SD = 1.34$ ) and in the oldest cohort ( $M = 3.75$ ,  $SD = 1.45$ ). A similar trend was found for “having creative and innovative ideas”: The mean values of teachers in the youngest cohort ( $M = 3.64$ ,  $SD = 1.58$ ) were significantly lower than the mean values of teachers in the middle cohort ( $M = 4.15$ ,  $SD = 1.12$ ) and in the oldest cohort ( $M = 4.36$ ,  $SD = 1.15$ ). These findings suggest that teachers in the youngest cohort attribute “being interested in technological change” and “having creative and innovative ideas” to young teachers to a larger extent than their older colleagues do. Regarding “making use of ICT”, young teachers ( $M = 3.59$ ,  $SD = 1.36$ ) were only found to have significantly lower mean scores than teachers in the middle cohort ( $M = 3.97$ ,  $SD = 1.16$ ). This finding indicates that teachers in all cohorts perceive “making use of ICT” as a characteristic of young teachers; however, young teachers perceive it as a characteristic of young teachers to a greater extent than teachers in the middle cohort do.

The lower section of Table 4 contains teacher characteristics that are attributed to older colleagues by teachers in all generational cohorts, as the mean values of all cohorts are above 5. Regarding “having extensive knowledge of the subject matter”, the mean values of the oldest ( $M = 6.94$ ,  $SD = 1.54$ ) and middle cohorts ( $M = 6.65$ ,  $SD = 1.51$ ) are significantly higher than the mean value of the youngest cohort ( $M = 6.22$ ,  $SD = 1.42$ ). Besides the fact that teachers in all cohorts agree that this item is a characteristic of older teachers, this implies that older teachers attribute this characteristic to older teachers to a larger extent than the youngest teachers do. A similar trend was found for “being loyal”: The mean values of the oldest ( $M = 6.16$ ,  $SD = 1.49$ ) and middle cohorts ( $M = 5.80$ ,  $SD = 1.42$ ) are significantly higher than the mean value of the youngest cohort ( $M = 5.11$ ,  $SD = 1.59$ ). These findings suggest that teachers in the youngest cohort attribute “being loyal” and “having extensive knowledge of the subject matter” to older teachers to a lesser extent than their older colleagues do. With respect to “classroom management skills, radiating respect and authority”, the mean value of teachers in the oldest cohort ( $M = 6.69$ ,  $SD = 1.54$ ) is significantly higher than the mean value of the youngest cohort ( $M = 6.12$ ,  $SD = 1.32$ ). This means that the oldest group of teachers perceives classroom management skills as a characteristic of older teachers to a larger extent than the youngest cohort does.

In the middle section of Table 4, teacher characteristics with mean values that vary across cohorts from above and below the neutral value of 5 are displayed. Regarding “being flexible”, “being enthusiastic”, and “being socially skilled”, the mean values of the youngest cohort are significantly lower than the mean values of the middle and oldest cohorts. In addition, the middle cohort has a significantly lower mean value than the oldest cohort.

Four teacher characteristics exhibited significant differences between the youngest cohort and the middle cohort on the one hand, and the oldest cohort on the other hand, but did not show significant differences between the middle and the oldest cohort. This was the case for “being motivated”, “exchanging course materials”, “being interested in professional development programs”, and “being collegiate”. The mean values of the teachers in the youngest cohort were significantly lower than those of teachers in the middle cohort and teachers in the oldest cohort. It must be noted that the mean values of the youngest cohort were lower than 5 and that the mean values of the oldest cohort were, in all characteristics, above 5. This means that young teachers perceive these positive attitudes more as a characteristic of their own cohort, while old teachers display the same reasoning for their own generational counterparts.

In general, there is a clear tendency for young teachers to have the lowest mean values across all the items. Given the fact that the items are mainly positive teacher characteristics, this suggests that younger teachers attribute these characteristics to their generational colleagues, “the young ones”, to a greater extent than their colleagues of other generational cohorts do. Therefore, our findings substantiate the so-called social identity theory by showing that teachers have more favorable beliefs about their own generational cohort.

## Conclusion and discussion

This study examined the extent to which teachers attribute characteristics – in terms of knowledge, skills, and attitudes – to younger or older colleagues; in other words, we investigated whether stereotypical beliefs exist among teachers. In addition, we used one-way ANOVA to examine whether differences between the generational cohorts could be found in terms of attributing characteristics to a certain age group.

We conclude that being interested in technological change, ICT use, having creative and innovative ideas, and considering another profession are found to be more applicable to young teachers, whereas extensive subject matter knowledge, classroom management skills, being conservative, being loyal, and taking a leadership role in activities are more likely to be attributed to older teachers. These findings confirm the previous findings of Geeraerts et al. (2016), who described innovative teaching methods and ICT skills as perceived knowledge supplies of young teachers but described subject knowledge and classroom management skills as perceived supplies of old teachers. It can be concluded that knowledge and skills related to the teaching profession are more clearly attributable to certain age groups, while perceptions on attitudes are mainly neutral; therefore, perceptions on attitudes are less likely to be age-related. This finding is in contrast with previous research in other

workplace settings, which has suggested that older workers are seen as, for instance, less flexible, less motivated, and less interested in professional development (e.g., Ng & Feldman, 2012; Posthuma & Campion, 2009; Taylor & Walker, 1994). We undoubtedly found support within our teacher context, however, for older workers being perceived as loyal and conservative. Our quantitative results also support the qualitative findings of Geeraerts et al. (2016), indicating that considering another profession is seen as a characteristic of young teachers and that being confident and conservative are seen as characteristics of older teachers. The fact that certain knowledge domains are related to certain age groups of teachers raises interesting questions on the consequences of these perceptions for knowledge-seeking behaviors and knowledge-providing behaviors among teachers. In other workplace contexts, research suggests that the decision to seek information from another colleague is informed by, for instance, knowing what that person knows and valuing this knowledge (Borgatti & Cross, 2003). A study on the advice-seeking behavior of teachers revealed that older teachers are less likely than younger teachers to ask advice and that older teachers are more likely than younger colleagues to offer advice; however, the content of the advice was neglected in this study (Geeraerts et al., 2017). Based on our findings, we expect that older teachers are more likely to be contacted for advice and information on the subject matter and classroom management skills; we expect young teachers, meanwhile, to be sought out for advice and information on innovative teaching methods and ICT. These expectations can form a starting point for further research on teacher generations and intergenerational learning.

Regarding differences between generational cohorts in attributing teacher characteristics to younger or older colleagues, our results revealed that, for the majority of characteristics, differences between generational cohorts exist. In almost all cases, significant differences were found between the youngest and oldest cohort in that teachers attributed positive characteristics, to a larger extent, to their own cohorts. These findings indicate that, at least to some extent, social identity theory (Tajfel & Turner, 1986) is at play. Future research might further investigate which other features, besides chronological age, can be a trigger for social categorization processes among teachers, for instance, the number of years of experience within the school.

We urge caution in the use of the label of “stereotype”. According to our definition of teachers’ age-related stereotypes, it refers to major generalizations entertained by teachers about their younger and older colleagues’ characteristics, in terms of knowledge, skills, and attitudes. In this study, we have only made statements on the extent to which stereotypical beliefs exist. The question remains as to whether stereotypes are reality or merely inaccurate perceptions of teacher characteristics. Future research might dive

more deeply into the accuracy of teachers' age-related stereotypes and unravel the extent to which stereotypical beliefs resemble or approach reality.

Furthermore, it must be acknowledged that the teacher characteristics in this study were primarily formulated in a positive way. While previous research, of Perry et al. (2013), suggested that stereotypes of young workers are more likely to be positive than stereotypes of older workers, our findings revealed that stereotypes of both younger and older teachers can be positive. Future research should endeavor to focus on negatively formulated age-related stereotypes within the context of teachers. Another interesting phenomenon encountered in this study was the lack of differences between different secondary education schools in Flanders, as demonstrated by our intraclass correlations. Teachers in different schools in Flanders seem to have similar beliefs with regard to attributing characteristics to younger or older colleagues. This raises questions on the impact of the broader culture. Further research might compare these findings to other national contexts. From a methodological perspective, this study has some limitations because self-report measures were exclusively used. We suggest the use of mixed-method designs in further studies on teachers' age-related stereotypes.

As generations are culturally embedded and age-related stereotypes can be seen as a sociocultural phenomenon, further research would benefit from a more comprehensive approach to age and generation within the context of teachers. Related to age, characteristics such as work tenure or seniority might also play a role. In Flanders, teachers of different generations might hold permanent or temporary positions within the schools. This might also affect teachers' behavior, especially in terms of attitudes. Moreover, due to teacher shortages in Flanders, workers from outside education are encouraged to start working as teachers. This signifies that even older teachers can be novices. Consequently, further studies could look more deeply into the role of teachers' experience levels.

The findings of this study also offer suggestions for practice. To develop a strong intergenerational teacher community within schools, school principals could spearhead efforts to decrease negative stereotyping by focusing on the strengths of teachers both as individuals and as a group. A pitfall to be avoided, in this respect, is perceiving the positive features of a certain generational cohort as a negative feature of the opposite generational cohort. Our findings indicated, for example, that older teachers were perceived to have extensive knowledge of the subject matter and classroom management skills. Rather than being directly interpreted and emphasized as a negative feature of young teachers in the sense that the youngest cohort lacks such knowledge and skills, this should simply be emphasized as a strength of older teachers. Positive characteristics that were seen as features of young teachers relate to technological knowledge and innovative ideas, which should be emphasized as a positive characteristic of this age group rather than as a negative feature of the oldest cohort. A climate in which the



positive characteristics of all generational cohorts are emphasized contributes to a strong professional teacher community (e.g., Stone-Johnson, 2017). Moreover, focusing on positive, rather than negative, stereotypes lubricates intergenerational interactions (Fowler & Gasiorek, 2018). The importance of stimulating interactions between teachers of different generations is twofold. First, it might contribute to a decrease in stereotyping (Fasbender & Deller, 2017). Second, it enables sharing of relevant knowledge and skills between different generations of teachers, which might contribute to intergenerational learning within the school team. Furthermore, creating awareness on the risks of stereotyping, referring to stereotype threat, might result in a decrease in both stereotypical beliefs and behavior based on these beliefs.

## References

- Bal, A. C., Reiss, A. E. B., Rudolph, C. W., & Baltes, B. B. (2011). Examining positive and negative perceptions of older workers: A meta-analysis. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 66(6), 687–698. doi:10.1093/geronb/gbr056
- Borgatti, S. P., & Cross, R. (2003). A relational view of information seeking and learning in social networks. *Management Science*, 49(4), 432–445. doi:10.1287/mnsc.49.4.432.14428
- Brücknerová, K., & Novotný, P. (2016). Intergenerational learning among teachers: Overt and covert forms of continuing professional development. *Professional Development in Education*, 43(3), 1–20.
- Cadiz, D. M., Pytlovany, A. C., & Truxillo, D. M. (2017). Ageism in the workplace.
- CEDEFOP. (2012). *Working and ageing. The benefits of investing in an ageing workforce*. Luxembourg: Publications Office of the European Union.
- Chiu, W. C. K., Chan, A. W., Snape, E., & Redman, T. (2001). Age stereotypes and discriminatory attitudes towards older workers: An East-West comparison. *Human Relations*, 54(5), 629–661. doi:10.1177/0018726701545004
- Compton, E., Brady, H., Hetherington, D., Howe, B., Lewin, G., O'Neill, M., & Roach, N. (2014). *Blueprint for an ageing Australia*. Sydney, Australia: Per Capita.
- Costanza, D. P., & Finkelstein, L. M. (2015). Generationally based differences in the workplace: Is there a there there? *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 8(4), 308–323. doi:10.1017/iop.2015.15
- Dencker, J. C., Joshi, A., & Martocchio, J. J. (2007). Employee benefits as context for intergenerational conflict. *Human Resource Management Review*, 17(2), 208–220. doi:10.1016/j.hrmr.2007.04.002
- Edge, K. (2014). A review of the empirical generations at work research: Implications for school leaders and future research. *School Leadership & Management*, 34(2), 136–155. doi:10.1080/13632434.2013.869206
- Eyerman, R., & Turner, B. C. (1998). Outline of a theory of generations. *European Journal of Social Theory*, 1(1), 91–106. doi:10.1177/136843198001001007
- Fasbender, U. (2016). Stereotype, prejudice and discrimination toward older workers: A wind of change? In R. J. Burke, C. Cooper, & A.-S. Antoniou (Eds.), *The aging workforce: Individual, organizational and societal challenges* (pp. 159–184). London, UK: Emerald Publishing.

- Fasbender, U., & Deller, J. (2017). Career management over the life-span. In J. McCarthy & E. Parry (Eds.), *The Palgrave handbook of age diversity and work* (pp. 705–736). London, UK: Palgrave-Macmillan.
- Ferres, N., Travaglione, A., & Firms, I. (2003). Attitudinal differences between generation X and older employees. *International Journal of Organisational Behaviour*, 63(3), 320–333.
- Finkelstein, L. M., Burke, M. J., & Raju, N. S. (1995). Age discrimination in simulated employment contexts: An integrative analysis. *Journal of Applied Psychology*, 80(6), 652–663. doi:[10.1037/0021-9010.80.6.652](https://doi.org/10.1037/0021-9010.80.6.652)
- Finkelstein, L. M., Ryan, K. M., & King, E. B. (2012). What do the young (old) people think of me? Content and accuracy of age-based metastereotypes. *European Journal of Work and Organizational Psychology*, 22, 633–657. doi:[10.1080/1359432X.2012.673279](https://doi.org/10.1080/1359432X.2012.673279)
- Fowler, C., & Gasiorek, J. (2018). Implications of metastereotypes for attitudes toward intergenerational contact. *Group Processes & Intergroup Relations*, 1–23. doi:[10.1177/1368430217744032](https://doi.org/10.1177/1368430217744032)
- Geeraerts, K., Van den Bossche, P., Vanhoof, J., & Moolenaar, N. M. (2017). Intergenerational professional relationships in elementary school teams: a social network approach. *Frontline Learning Research*, 5(2), 78–98. doi: [10.14786/flr.v5i2.293](https://doi.org/10.14786/flr.v5i2.293)
- Geeraerts, K., Vanhoof, J., & Van den Bossche, P. (2016). Teachers' Perceptions Of Intergenerational Knowledge Flows. *Teaching and Teacher Education*, 56, 150–161. doi:[10.1016/j.tate.2016.01.024](https://doi.org/10.1016/j.tate.2016.01.024)
- Gerpott, F. H., Lehmann-Willenbrock, N., & Voelpel, S. C. (2017). A phase model of intergenerational learning in organizations. *Academy of Management Learning & Education*, 16 (2), 193–216.
- Hassell, B. L., & Perrewé, P. L. (1995). An examination of beliefs about older workers: Do stereotypes still exist? *Journal of Organizational Behavior*, 16(5), 457–468. doi:[10.1002/\(ISSN\)1099-1379](https://doi.org/10.1002/(ISSN)1099-1379)
- Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). *The aging workforce: Realities, myths, and implications for organizations*. Washington, DC: American Psychological Association.
- Henkens, K. (2005). Stereotyping older workers and retirement: The managers' point of view. *Canadian Journal on Aging*, 24(4), 353–366. doi:[10.1353/cja.2006.0011](https://doi.org/10.1353/cja.2006.0011)
- Hilton, J. L., & von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology*, 47, 237–271. doi:[10.1146/annurev.psych.47.1.237](https://doi.org/10.1146/annurev.psych.47.1.237)
- Judd, C. M., & Park, B. (1993). Definition and assessment on accuracy in social stereotypes. *Psychology Review*, 100(1), 109–128. doi:[10.1037/0033-295X.100.1.109](https://doi.org/10.1037/0033-295X.100.1.109)
- Kicheva, T. (2017). Management of employees from different generations. *Challenge for Bulgarian Managers and Hr Professionals. Economic Alternatives*, 1, 89–102.
- Kunze, F., Boehm, S. A., & Bruch, H. (2011). Age diversity, age discrimination climate and performance consequences-a cross organizational study. *Journal of Organizational Behavior*, 32(2), 264–290. doi:[10.1002/job.698](https://doi.org/10.1002/job.698)
- Levy, B. R., & Leifheit-Limson, E. (2009). The stereotype-matching effect: Greater influence on functioning when age stereotypes correspond to outcomes. *Psychology and Aging*, 24(1), 230–233. doi:[10.1037/a0014563](https://doi.org/10.1037/a0014563)
- Lyons, S., & Kuron, L. (2014). Generational differences in the workplace: A review of the evidence and directions for future research. *Journal of Organizational Behavior*, 35(1), S139–S157. doi:[10.1002/job.1913](https://doi.org/10.1002/job.1913)
- Lyons, S., Urick, M., Kuron, L., & Schweitzer, L. (2015). Generatiioonal differences in the workplace: There is complexity beyond the stereotypes. *Industrial and Organizational Psychology*, 8(3), 346–356. doi:[10.1017/iop.2015.48](https://doi.org/10.1017/iop.2015.48)
- Mannheim, K. (1952). *Essays on the sociology of knowledge*. London, UK: Routledge & Kegan Paul.

- Marcus, J., Fritzsche, B. A., Le, H., & Reeves, M. D. (2016). Validation of the work-related age-based stereotypes (WAS) scale. *Journal of Managerial Psychology*, 31(5), 989–1004. doi:[10.1108/JMP-11-2014-0320](https://doi.org/10.1108/JMP-11-2014-0320)
- McGarty, C., Yzerbyt, V. Y., & Spears, R. (2002). Social, cultural and cognitive factors in stereotype formation. In C. McGarty, V. Y. Yzerbyt, & R. Spears (Eds.), *Stereotypes as explanations. The formation of meaningful beliefs about social groups* (pp. 1–16). Cambridge, UK: Cambridge University Press.
- Ng, T. W. H., & Feldman, D. C. (2012). Evaluating six common stereotypes about older workers with meta-analytical data. *Personnel Psychology*, 65, 821–858. doi:[10.1111/peps.2012.65.issue-4](https://doi.org/10.1111/peps.2012.65.issue-4)
- Novotný, P., & Brücknerová, K. (2014). Intergenerational learning among teachers: An interaction perspective. *Studia Paedagogica*, 19(4), 45–79. doi:[10.5817/SP2014-4-3](https://doi.org/10.5817/SP2014-4-3)
- Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Cambridge, UK: Blackwell.
- Perry, E. L., Hanvongse, A., & Casoinic, D. A. (2013). Making a case for the existence of generational stereotypes: A literature review and exploratory study. In J. Field, R. J. Burke, & C. L. Cooper (Eds.), *The SAGE handbook of aging, work and society* (pp. 416–442). London, UK: SAGE publications.
- Posthuma, R. A., & Campion, M. A. (2009). Age stereotypes in the workplace: Common stereotypes, moderators, and future research directions. *Journal of Management*, 35(1), 158–188. doi:[10.1177/0149206308318617](https://doi.org/10.1177/0149206308318617)
- Ropes, D., & Ypsilanti, A. (2016). A conceptual framework for managing intergenerational relations in the workplace. In A.-S. Antoniou, R. J. Burke, & S. C. L. Cooper (Eds.), *The aging workforce handbook: Individual, organizational, and societal challenges* (pp. 229–322). Bingley, UK: Emerald Group Publishing Limited.
- Schulz, R., Noelker, L. S., Rockwood, K., & Sprott, R. L. (2006). *The encyclopedia of aging* (4 ed.). New York, NY: Springer Publishing.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–21. doi:[10.17763/haer.57.1.j463w79r56455411](https://doi.org/10.17763/haer.57.1.j463w79r56455411)
- Stone-Johnson, C. (2017). Autonomy, professionalism, and the role of generation in professional capital. *Journal of Professional Capital and Community*, 2(1), 18–35. doi:[10.1108/JPCC-10-2016-0024](https://doi.org/10.1108/JPCC-10-2016-0024)
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
- Taylor, P., & Walker, A. (1994). The ageing workforce: Employers' attitudes towards older workers. *Work, Employment and Society*, 8(4), 569–591. doi:[10.1177/095001709484005](https://doi.org/10.1177/095001709484005)
- Truxillo, D. M., Cadiz, D. M., & Hammer, L. B. (2015). Supporting the aging workforce: A review and recommendations for workplace intervention research. *Annual Review of Organizational Psychology and Organizational Behavior*, 2, 351–381. doi:[10.1146/annurev-orgpsych-032414-111435](https://doi.org/10.1146/annurev-orgpsych-032414-111435)
- Twenge, J. M. (2010). A review of the empirical evidence on generational differences in work attitudes. *Journal of Business Psychology*, 25(2), 201–210. doi:[10.1007/s10869-010-9165-6](https://doi.org/10.1007/s10869-010-9165-6)
- Wong, M., Gardiner, E., Lang, W., & Coulon, L. (2008). Generational differences in personality and motivation: Do they exist and what are the implications for the workplace? *Journal of Managerial Psychology*, 23(8), 878–890. doi:[10.1108/02683940810904376](https://doi.org/10.1108/02683940810904376)