

Article

Personal and Job Factors Associated with Teachers' Active Listening and Active Empathic Listening

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Abstract: Active listening is important for effective interpersonal communication, a prerequisite for successful teaching. The presented cross-sectional study examined personal and work factors associated to active listening in 3,995 Greek schools' educators of all teaching levels and specialties. The study questionnaire posted on official and main teachers' portals included personal and working data items, the Active Empathic Listening Scale (AELS), and the Active Listening Attitude Scale (ALAS). Multiple linear regression was used to identify independently associated factors with AELS and ALAS dimensions, and standardized regression coefficients were performed to measure the effect of independent variables. Regarding AELS, gender had the greatest effect on the Sensing subscale, followed by age and mental health promotion training. Years of teaching had the greatest effect on Processing subscale, followed by higher studies. Gender had the greatest effect on Responding subscale, followed by age, higher studies, and mental health promotion training. Concerning ALAS, mental health promotion training and support from colleagues had the greatest effect on Listening attitude subscale, gender and mental health promotion training had the greatest effect on Listening skill subscale, and gender, age, and years of teaching had the greatest effect on Conversation opportunity subscale. The identification of enhancing factors like training in mental health promotion could significantly contribute in designing training that can simultaneously benefit teachers' skills and students' psychosocial well-being.

Keywords: active listening; active empathic listening; teachers; personal factors; job factors

1. Introduction

Listening is an integral and essential part of the communication process, and when conducted actively, it plays an important role in effective interpersonal communication (Bodie 2011a; Bodie et al. 2012; Robertson 2005; Street et al. 2009), which in turn is a prerequisite for successful teaching (Bond 2012; McNaughton et al. 2008). Effective listening skills are the foundation of learning, which can only take place when the listener understands the speaker's intention and provides the appropriate cognitive-behavioral response (Bond 2012).

Active listening has been defined by Mineyama and colleagues (2007) as a way of listening and responding to others that improves mutual understanding (Mineyama et al. 2007). It aims to help the listener develop a clear understanding of the speaker's concern and subsequently clearly communicate his/her interest in it (McNaughton et al. 2008). According to Mishima and his colleagues (2007),

a central part of the concept of active listening is formed by both listening attitudes and listening skills. Listening attitudes refer to the person-centered approach which is based on empathy, compatibility, and an unconditional positive attitude, while listening skills refer to the listening response and to the techniques used in order to promote the discussion (Mineyama et al. 2007). Several techniques, such as maintaining eye contact, not interrupting, making encouraging comments and gestures, posing open questions, paraphrasing, mirroring, reframing, and summarizing, can be used by the listener in order to exhibit active listening and show full understanding of the message conveyed by the speaker (Robertson 2005; McNaughton et al. 2008; Gordon and Burch 2003; Weger et al. 2010). These techniques, though useful, may seem inauthentic if practiced without empathy (Rogers and Farson 1979).

Active empathetic listening, a closely related concept which focuses on the role of empathy in active listening, was incepted by Drollinger et al. (2006) in the context of product sales and is defined as “a form of listening practiced by salespeople in which traditional active listening is combined with empathy to achieve a higher form of listening” (Drollinger et al. 2006, p. 162). Drollinger et al. (2006) described active empathetic listening as a procedure that includes three stages on behalf of the listener: (a) sensing, which refers to his/her attending to all of the explicit and implicit information expressed by the speaker, (b) processing, which consists of synthesizing and remembering information in order to enable the construction of a narrative whole, and (c) responding, which refers to the use of verbal and nonverbal means to indicate attention. Drollinger and her colleagues (2006) designed the first tool for active empathetic listening assessment in the sales sector, namely the Active Empathetic Listening measure (AEL). The measure was later adapted for use in more general conversational settings by Bodie (2011b) and named Active Empathetic Listening Scale (AELS).

Active listening as a technique was initially developed for use in counselling in order to achieve effective listening and responding to clients (Rogers and Farson 1979; Meier and Davis 1993; Egan 1998; Levitt 2002) according to the person-centered humanistic therapeutic approach of Carl Rogers (Rogers [1957] (2007)). Its effectiveness led to attempts of implementation in other contexts, such as the field of occupational psychology, where it has been widely used in the training of managers (Kubota et al. 2004; Kubota et al. 1997; Rautalinko and Lisper 2004) and salespeople (Kubota et al. 2004; Flynn et al. 2008; Nishiuchi et al. 2007; Ramsey and Sohi 1997; Kubota et al. 1997). It has also been widely used in the health field for health professionals' training in effective communication with patients (Brown et al. 2002; Gilbert 2004; Edwards et al. 2006; Fasssaert et al. 2007; Boudreau et al. 2009; Santos and de Carvalho Torres 2012; Wloszczak-Szubzda and Jarosz 2012).

Active listening has also been researched in the field of education (e.g., Huerta-Wong and Schoech 2010; McNaughton et al. 2008; Rost 2013; Schultz 2003), since teachers' listening skills have been proven important not only for the student–teacher relationship and the learning process (Bond 2012) but also for the effective communication with parents (Lasky 2000; McNaughton et al. 2008). Active listening skills can help educators build a relationship between the school and the family, based on trust, sincere interest and mutual respect (Lasky 2000). Concerning teachers' active listening skills' enhancement, it has been shown that training can improve them (Doikou and Diamandidou 2011; Janusik 2002; Symeou et al. 2012; Wolvin and Coakley 2000), but only through structured interventions that have adequate duration (Wolvin and Coakley 2000). Identifying personal characteristics, job factors, and certain types of training that relate to teachers' active listening skills could be of substantial use; detecting risk factors and locating reinforcing ones that could be further strengthened, could greatly benefit the educational process.

In this regard, the purpose of this study is to investigate the personal and work factors that are associated with active listening and empathic active listening skills of Greek schools' educators of all teaching levels and specialties. We hypothesized that personal factors—like gender, age, educational level, specialty, and training in mental health promotion—and work factors—like job position, teaching experience, and support from colleagues—would predict teachers' active listening skills. Research concerning factors associated with active listening is very limited. Apart from studies

which mention that gender (e.g., [Burlison 2003](#); [Roter and Hall 2004](#); [Roter et al. 2002](#); [Wisikin et al. 2004](#)) and age (e.g., [Hamidi and Barati 2011](#); [Suzuki Laidlaw et al. 2006](#)) affect communication skills in general, all others seem to rather focus on the results of the use of active listening and not on the factors which could possibly predict higher performance in it. Research on Greek teachers' active listening skills is quite limited as well. To our knowledge, there are but a very few studies regarding active listening to date ([Doikou and Diamandidou 2011](#); [Kourmoussi Ntina et al. 2017a, 2017b](#); [Symeou et al. 2012](#)) and none related to the factors that predict performance in it.

2. Materials and Methods

2.1. Study Type and Procedure

The presented cross-sectional study was conducted in the beginning of 2016 via internet. An anonymous questionnaire was hosted for a few weeks by the official Greek schools' and educators' network's site, namely the Panhellenic School Network (www.sch.gr), to which all schooling institutions are officially linked and therefore all educators have access. It was also posted on other official sites of various teachers' associations (i.e., www.pekade.gr, www.p-e-f.gr, www.inital.gretc). Educators were invited to complete the questionnaire by clicking on a banner informing them of the study's aims and the institution that was carrying it out. Upon completion, they were given information on active listening and active listening skills.

2.2. Measures

The study questionnaire consisted of the Greek translation of the Active Empathic Listening Scale (AELS) ([Bodie 2011b](#)), the Greek translation of the Active Listening Attitude Scale (ALAS) ([Mishima et al. 2000](#)), and items investigating personal and job information. Concerning the two scales, participants were instructed to choose the answer that best reflected their ordinary style of listening in their workplace (i.e., kindergarten, elementary school, high school, lyceum, etc.).

2.2.1. Active Empathic Listening Scale

The AELS ([Bodie 2011b](#)) is a self-report measure that assesses active empathic listening and includes 11 items that are categorized in three subscales: (a) Sensing, which includes four items and refers to a listener being able to receive both the expressed and the tacit information sent out by the other person (e.g., "I am aware of what others imply but do not say"); (b) Processing, which includes three items that investigate the ability of synthesizing and recalling the given information (e.g., "I keep track of points others make"); and (c) Responding, which includes four items and estimates the use of verbal and nonverbal means to clarify and indicate attention (e.g., "I ask questions that show my understanding of others' positions"). Responses are given on a seven-point Likert scale, with alternatives being 1 = Never or almost never true, 2 = Usually not true, 3 = Sometimes but infrequently true, 4 = Occasionally true, 5 = Often true, 6 = Usually true, and 7 = Always or almost always true. The Greek version of the scale was validated and found to have satisfactory psychometric properties for use in the Greek teachers' population ([Kourmoussi et al. 2017b](#)). Cronbach's alpha was 0.82 for Sensing, 0.76 for Processing, and 0.82 for Responding.

2.2.2. Active Listening Attitude Scale

The Greek translation of the ALAS ([Kourmoussi Ntina et al. 2017a](#)) was used in the presented study in order to assess teachers' active listening skills. The ALAS ([Mishima et al. 2000](#)) is also a self-report measure that includes 31 items divided in three subscales: (a) Listening Attitude, which includes thirteen items with reverse scoring that refer to unconditional positive regard (e.g., "I begin to talk before the other person finishes talking," "I tend to persist in my opinion, while talking with others"); (b) Listening Skill, which includes 11 items that describe more technical aspects of active listening and empathy related ones (e.g., "I listen to the other person, summarizing in my mind what he/she

has said," "I listen to the other person, paying attention to his/her unexpressed feelings"); and (c) Conversation Opportunity, which includes seven items that assess the listener's availability and accessibility by others (e.g., "I'm the kind of person whom people feel easy to talk to," "I'm asked my advice by other people"). ALAS items are scored on a four-point scale, with response choices being 0 = Disagree, 1 = Rather Disagree, 2 = Rather Agree, and 3 = Agree. The Greek version of the scale was validated and found to have satisfactory psychometric properties for use in the Greek teachers' population (Kourmousi Ntina et al. 2017a). Cronbach's alpha was 0.81 for Listening attitude, 0.72 for Listening skills, and 0.73 for Conversation opportunity.

2.2.3. Personal and Job Related Factors

Personal data were collected as well. Specifically, questions referred to gender, age, marital status, having children, educational level, and mental health promotion training. Job-related data, including years of teaching experience, the teaching grade, the specialty, the occupation of an administrative position, the type of institution (private or public), the number of residents of the institution's location, the working status (part time/full time), the number of students in class (mean), working in special education, having students in need of special education (according to a specialist), having students in need of special education (according to own opinion), having students with difficulties in speaking or comprehension, and having support from colleagues when needed, were also investigated.

2.3. Statistical Analysis

Quantitative variables are expressed as mean values (SD). Qualitative variables are expressed as absolute and relative frequencies. Multiple linear regression was used to find independently associated factors with AELS and ALAS dimensions. Regressions coefficients (β) with their standard errors (SE) were computed from the results of the linear regression analyses. Also, standardized regression coefficients were performed as a measure of the effect of independent variables. All p values reported are two-tailed. Statistical significance was set at 0.05, and analyses were conducted using SPSS statistical software (version 22.0).

3. Results

Participants included 1108 male and 2847 female (N = 3955) teachers of Greek educational institutions with mean age 43.3 years (SD = 8.9 years) and mean number of students 18.2 (SD = 9.6). Descriptive statistics for study variables are presented in Table 1.

Table 1. Descriptive statistics for study variables.

	N(%)
Gender	
Men	1108(28)
Women	2847(72)
Age (years), mean (SD)	43.3(8.9)
Marital status	
Not married	1329(33.6)
Married	2626(66.4)
Children	
No	1317(33.3)
Yes	2638(66.7)

Table 1. Cont.

	N(%)
Highest degree	
Bachelor	2552(64.5)
Masters/PhD	1403(35.5)
Years of teaching, mean (SD)	15.5(8.4)
Number of residents in the area of teaching	
At most 1999	1275(32.2)
2000 to 9999	1916(48.4)
10,000 to 250,000	764(19.3)
Type of School	
Public	3344(84.6)
Private	611(15.4)
Teaching level	
Primary	1562(39.5)
Secondary (High school/lyceum)	2393(60.5)
Specialty	
Elementary school teachers	826(20.9)
Literature secondary education teachers	724(18.3)
Kindergarten teachers	411(10.4)
English teachers (EFL)	187(4.7)
Physicists	234(5.9)
Mathematicians	299(7.6)
Other secondary education specialties	1274(32.2)
Working status	
Part time	471(11.9)
Full time	3484(88.1)
Administrative position	
No	3443(87.1)
Yes	512(12.9)
Number of students in class, mean (SD)	18.2(9.6)
Working in special education	
No	3759(95.0)
Yes	196(5.0)
Having received training in mental health promotion	
No	3141(79.4)
Yes	814(20.6)
Students in need of special education (according to a specialist)	
No	1881(47.6)
Yes	2074(52.4)
Students in need of special education (according to own opinion)	
No	1174(29.7)
Yes	2781(70.3)
Students with difficulties in speaking or comprehension	
No	1431(36.2)
Yes	2524(63.8)
Support from colleagues when needed	
No	639(16.2)
Yes	3316(83.8)

Out of the 3.955 participants, 66.4% were married and 66.7% had children. Also, 35.4% of them held a Masters and/or a PhD. Additionally, the majority worked in the public sector (84.6%), teaching full time (88.1%), and had a permanent position (86.6%). In 48.4% of the sample, the number of residents of the district they worked in was 2000 to 9999. The majority of the participants (60.5) taught in secondary education, while concerning their specialty, most of them were elementary school teachers (20.9%), literature secondary education teachers (18.3%), and kindergarten teachers (10.4%). Only 12.9% of the participants were school principals and the mean years of holding this position was 7.2 (SD = 5.6). Only 5% of the study sample worked in special education. Moreover, 52.4% of the teachers had students who needed special education according to a specialist, 70.3% claimed to have undiagnosed students in need of special education in their class, and 63.8% reported that they had students with difficulties in speaking or language apprehension. Also, 20.6% of the sample reported having attended training in mental health promotion programmes, and 83.8% reported having support from their colleagues when needed. Table 2 shows mean values for AELS and ALAS dimensions.

Table 2. Mean values for Active Empathic Listening Scale (AELS) and Active Listening Attitude Scale (ALAS) dimensions.

	Mean	SD
Sensing (AELS)	5.56	0.81
Processing (AELS)	5.29	1.01
Responding (AELS)	5.69	0.93
Listening attitude (ALAS)	23.85	5.42
Listening skill (ALAS)	23.75	3.53
Conversation opportunity (ALAS)	14.95	2.18

Multiple linear regression analysis with dependent variables the AELS subscales is presented in Table 3.

Table 3. Results from multiple linear regression analysis for AELS dimensions.

	Sensing			Processing			Responding		
	β(SE)†	b¶	P	β(SE)	b	P	β(SE)	b	P
Gender									
Men, reference									
Women	0.26(0.03)	0.15	<0.001	0.08(0.04)	0.04	0.030	0.25(0.03)	0.12	<0.001
Age	0.01(0.00)	0.07	0.019	0.00(0.00)	0.02	0.460	−0.01(0.00)	−0.10	0.001
Married vs. non married	0.00(0.04)	0.00	0.932	0.03(0.05)	0.01	0.512	−0.01(0.04)	0.00	0.841
Having children	0.00(0.04)	0.00	0.926	0.04(0.05)	0.02	0.441	0.06(0.05)	0.03	0.230
Highest degree									
Bachelor, reference									
Master/PhD	0.09(0.03)	0.05	0.001	0.14(0.04)	0.06	<0.001	0.15(0.03)	0.08	<0.001
Specialty									
Elementary school teacher, ref									
Mathematicians	−0.13(0.06)	−0.04	0.020	0.02(0.07)	0.01	0.803	−0.31(0.06)	−0.09	<0.001
Physicists	−0.12(0.06)	−0.04	0.049	−0.06(0.08)	−0.02	0.408	−0.28(0.07)	−0.07	<0.001
EFL teachers	0.13(0.07)	0.03	0.053	0.01(0.08)	0.00	0.893	0.10(0.08)	0.02	0.165
Kindergarten teachers	0.00(0.05)	0.00	0.955	0.02(0.06)	0.01	0.793	−0.03(0.06)	−0.01	0.592
Literature teachers	0.01(0.04)	0.00	0.839	0.00(0.05)	0.00	0.962	−0.07(0.05)	−0.03	0.117
Other secondary education specialty teachers	0.01(0.04)	0.00	0.845	0.01(0.05)	0.01	0.811	−0.14(0.04)	−0.07	0.001
Years of teaching	0.00(0.00)	0.02	0.570	0.01(0.00)	0.07	0.009	0.01(0.01)	0.01	0.435
Number of residents in the area of teaching									
≤9999, reference									
10,000–250,000	0.00(0.03)	0.00	0.922	−0.06(0.04)	−0.03	0.100	−0.05(0.04)	−0.01	0.529
>250,000	0.00(0.04)	0.00	0.973	−0.1(0.05)	−0.04	0.048	−0.08(0.05)	−0.03	0.095

Table 3. Cont.

	Sensing			Processing			Responding		
	β (SE) [†]	b [‡]	P	β (SE)	b	P	β (SE)	b	P
Type of School									
Public, reference									
Private	0.07(0.05)	0.03	0.190	0.05(0.06)	0.02	0.389	0(0.06)	0.00	0.969
Teaching level									
primary, reference									
secondary	−0.02(0.03)	−0.01	0.444	0.01(0.04)	0.01	0.724	−0.07(0.04)	−0.04	0.038
Working full time vs. part time	−0.05(0.05)	−0.02	0.370	−0.12(0.07)	−0.01	0.167	−0.04(0.06)	−0.01	0.547
Being a Principal	0.07(0.04)	0.03	0.076	0.16(0.05)	0.05	0.002	0.03(0.05)	0.01	0.536
Number of students in class	0.00(0.00)	−0.01	0.655	0.00(0.00)	−0.03	0.066	0.00(0.00)	−0.02	0.181
Working in special education	0.01(0.07)	0.00	0.879	−0.12(0.08)	−0.02	0.157	0.01(0.08)	0.00	0.941
Having received training in mental health promotion	0.14(0.03)	0.07	<0.001	0.12(0.04)	0.05	0.004	0.15(0.04)	0.07	<0.001
Having students in need of Special education (according to specialists)	0.07(0.03)	0.04	0.010	0.06(0.04)	0.03	0.100	0.06(0.04)	0.03	0.097
Having students in need of special education (according to ownopinion)	0.05(0.04)	0.03	0.139	0.02(0.04)	0.01	0.613	0.03(0.04)	0.01	0.515
Having students with difficulties in speaking or comprehension	−0.03(0.03)	−0.01	0.396	0.01(0.04)	0.00	0.850	−0.02(0.03)	−0.01	0.529
Having support from colleagues when needed	−0.04(0.04)	−0.02	0.292	0.11(0.05)	0.04	0.011	0.1(0.04)	0.04	0.014

[†] Regressions coefficients (standard errors); [‡] standardized regression coefficient.

Multiple linear regression analysis with dependent variable the Sensing subscale (Table 3) showed that the female gender, increased age, having a Masters and/or a PhD, having received training on mental health promotion, and having students in class that needed special education according to specialists, were significantly and independently associated with greater levels on Sensing subscale. Standardized coefficients used to identify the strength of the effect that the independent variables have on a dependent variable showed that gender had the greatest effect on Sensing subscale followed by age and having received training in mental health promotion. Regarding the educators' specialty, with elementary teachers as the reference group, mathematicians and physicists scored lower.

Regression analysis for Processing subscale showed that women, those with a Masters and/or PhD, principals, those trained on mental health promotion, and those being supported by colleagues when needed had higher levels of Processing. Additionally, scores on Processing increased as years of teaching increased as indicated from the positive coefficient. Lower levels of Processing were found in teachers whose number of residents in the area of teaching was >250,000, as compared with teachers whose number of residents in the area of teaching was ≤9999. Years of teaching had the greatest effect on Processing subscale, followed by holding a Masters and/or PhD, as indicated from the standardized coefficient.

Higher levels of Responding were found in women, in those holding a Masters and/or PhD, in those that had received training in mental health promotion, and those that had support from colleagues when needed. Furthermore, increased age was associated with lower scores on Responding, while lower scores were found in teachers working in secondary education as compared with those working in primary education. Standardized coefficients showed that gender had the greatest effect on Responding subscale followed by and age, having a Masters and/or PhD, and having received training on mental health promotion. Regarding the educators' specialty, with elementary teachers as the reference group, mathematicians, physicists and other secondary education specialty teachers scored lower.

Multiple linear regression analysis with dependent variables the ALAS subscales is presented in Table 4.

Table 4. Results from multiple linear regression analysis for ALAS dimensions.

	Listening Attitude			Listening Skill			Conversation Opportunity		
	β (SE) [†]	b [‡]	P	β (SE)	b	P	β (SE)	b	P
Gender									
Men, reference									
Women	0.26(0.2)	0.02	0.206	1.27(0.13)	0.16	<0.001	0.56(0.08)	0.12	<0.001
Age	0(0.02)	0.00	0.965	0.00(0.01)	−0.01	0.744	0.02(0.01)	0.08	0.006
Married vs. non married	−0.01(0.25)	0.00	0.975	0.01(0.16)	0.00	0.932	0.07(0.1)	0.02	0.463
Having children	0.35(0.27)	0.03	0.206	−0.05(0.18)	−0.01	0.763	−0.11(0.11)	−0.02	0.323
Highest degree									
Bachelor, reference									
Master/PhD	0.49(0.19)	0.04	0.011	0.24(0.12)	0.03	0.049	0.11(0.08)	0.02	0.164
Specialty									
Elementary school teacher, ref	−0.47(0.37)	−0.02	0.204	−0.41(0.24)	−0.03	0.081	−0.19(0.15)	−0.02	0.197
Mathematicians	−0.79(0.41)	−0.04	0.052	−0.62(0.26)	−0.04	0.019	−0.52(0.16)	−0.06	0.002
Physicists	−0.66(0.44)	−0.03	0.134	0.06(0.28)	0.00	0.821	0.01(0.18)	0.00	0.937
EFL teachers	1.09(0.33)	0.06	0.001	0.17(0.21)	0.02	0.422	−0.02(0.13)	0.00	0.877
Kindergarten teachers	−0.44(0.28)	−0.03	0.113	0.14(0.18)	0.02	0.444	−0.07(0.11)	−0.01	0.529
Literature teachers	0.05(0.24)	0.00	0.831	−0.08(0.16)	−0.01	0.603	−0.07(0.10)	−0.02	0.451
Other secondary education specialty teachers	−0.47(0.37)	−0.02	0.204	−0.41(0.24)	−0.03	0.081	−0.19(0.15)	−0.02	0.197
Years of teaching	−0.01(0.02)	−0.02	0.545	0.02(0.01)	0.04	0.163	0.02(0.01)	0.06	0.025
Number of residents in the area of teaching									
≤9999, reference									
10,000–250,000	−0.05(0.21)	−0.01	0.808	−0.13(0.13)	−0.02	0.333	−0.04(0.08)	−0.01	0.631
>250,000	−0.39(0.27)	−0.03	0.138	−0.17(0.17)	−0.02	0.305	−0.05(0.11)	−0.01	0.629
Type of school									
Public, reference									
Private	−0.11(0.34)	−0.01	0.735	0.22(0.22)	0.02	0.318	0.18(0.14)	0.03	0.188
Teaching level									
primary, reference									
secondary	−0.23(0.21)	−0.02	0.257	−0.03(0.13)	0.00	0.827	−0.07(0.08)	−0.02	0.362
Working full time vs. part time	−0.07(0.35)	0.00	0.841	−0.27(0.22)	−0.02	0.222	−0.03(0.14)	0.00	0.837
Being a Principal	0.24(0.28)	0.02	0.391	0.44(0.18)	0.04	0.013	0.15(0.11)	0.02	0.171
Number of students in class	0.00(0.01)	0.00	0.948	−0.01(0.01)	−0.02	0.302	0.00(0.00)	−0.02	0.293
Working in special education	0.23(0.45)	0.01	0.606	0.01(0.29)	0.00	0.981	−0.15(0.18)	−0.02	0.388
Having received training in mental health promotion	0.8(0.23)	0.06	<0.001	0.43(0.14)	0.05	0.003	0.14(0.09)	0.03	0.130
Having students in need of special education (according to specialists)	−0.15(0.21)	−0.01	0.459	0.29(0.13)	0.04	0.030	0.12(0.08)	0.03	0.160
Having students in need of special education (according to own opinion)	−0.06(0.23)	−0.01	0.788	−0.02(0.15)	0.00	0.908	−0.05(0.09)	−0.01	0.604
Having students with difficulties in speaking or comprehension	−0.16(0.2)	−0.06	0.458	0(0.13)	0.00	0.997	0.04(0.08)	0.01	0.647
Having support from colleagues when needed	0.85(0.24)	0.06	<0.001	0.19(0.15)	0.02	0.211	0.12(0.1)	0.02	0.205

Regressions coefficients (standard errors); [‡] standardized regression coefficient.

Multiple linear regression analysis with the dependent variable Listening attitude of the ALAS scale showed that having a Masters and/or a PhD, having received training in mental health promotion, and having support from colleagues when needed were independently associated with greater scores on Listening attitude subscale. Training in mental health promotion and support from colleagues had the greatest effect, as implicated from the size of the standardized coefficients. Regarding the educators’ specialty, with elementary teachers as the reference group, the only significant difference was noted in the teachers of English as a foreign language, who scored higher.

In reference to Listening skill, subscale multiple regression analysis revealed that women as compared to men, and those holding a Masters and/or a PhD as compared to those with lower

educational level, had greater scores. Additionally, it was found that being a principal, having received training in mental health promotion, and having students that needed special education according to specialists were independently associated with greater scores on Listening skill. Standardized coefficients indicated that gender and training on mental health promotion had the greatest effect on Listening skill. Regarding the educators' specialty, with elementary teachers as the reference group, mathematicians scored lower.

Conversation opportunity (Table 4) was found to be independently associated with gender, age, and years of teaching. It was found that as age or years of teaching increase, scores on Conversation opportunity increase too. Also, women had higher scores as compared to men, and gender appeared to have the greatest effect in conversation opportunity, followed by increased age and years of teaching. Regarding the educators' specialty, with elementary teachers as the reference group, mathematicians scored lower.

4. Discussion

The presented study examined personal and work related factors' association with active listening skills in 3,995 Greek schools' educators of all teaching levels and specialties. Our hypotheses that such factors would predict teachers' active listening performance were confirmed.

4.1. Factors Associated with AELS Subscales

4.1.1. Sensing Subscale

The factors that were significantly and independently associated with greater ability to receive both expressed and tacit information as investigated by the Sensing subscale of the AELS measure were in order of effect gender, age, and training in mental health promotion, followed by higher studies (Masters and/or a PhD) and having students in class that needed special education according to specialists. Regarding the gender difference in Sensing, a similar finding of women's better performance was reported by [Pence and James \(2015\)](#) on a study of the role of biological gender in the relationship between personality and active-empathic listening, with the use of the same measure. A couple of studies on development ([Fassaert et al. 2007](#)) and validation ([Kourmoussi Ntina et al. 2017a, 2017b](#)) of active listening assessment tools have also come across the finding that females demonstrate higher ability of understanding the speaker's spoken and unspoken concerns. After all, women have long been believed to be better listeners ([Briton and Hall 1995](#); [Broverman et al. 1972](#)) and to possess better listening skills in general ([Napier and Taylor 2002](#); [West 1995](#)), since they dispose higher levels of empathy than men ([Spreng et al. 2009](#); [Toussaint and Webb 2005](#); [Youssef et al. 2014](#)) and understand others' emotions better ([Rosenkrantz et al. 1968](#)); research has also shown that they pay closer attention to the speaker and the things said and that they listen more effectively ([Christov-Moore et al. 2014](#); [Rueckert and Naybar 2008](#); [Rueckert et al. 2011](#); [Thompson and Voyer 2014](#)).

With regard to age differences in Sensing, it has also been long believed that age relates to listening effectiveness ([Barker 1971](#)), but relevant research concerning active listening is limited; similar findings of lower sensing and listening skills in younger educators have been presented by a couple of recent studies on validation of active listening measures ([Kourmoussi Ntina et al. 2017a, 2017b](#)), while another study found that in heads of departments listening skills in general improve with age ([Hamidi and Barati 2011](#)). These findings could imply that the older someone grows the more improved his/her social interest and attention towards the others gets, thus his/her attending to all of the explicit and implicit information expressed by the speaker improves as well. Another possible explanation for age differences in sensing and listening performance could be detected in societal changes; those older in age have grown up in a time and a society where communication was strictly in person, and therefore individuals were trained to pay close attention to the speakers' verbal and non-verbal clues in order to receive full information. The younger ones, on the contrary, were brought up in an electronic

communication society, where information has to be clearly presented by the transmitter in order to be understood by the receiver; consequently, few opportunities are left for them to practice sensing skills.

In reference to the higher performance of those who had received training in mental health promotion in the Sensing subscale, although this factor has not been considered by many researchers, the validation studies of two active listening measures in Greece by [Kourmoussi Ntina et al. \(2017a, 2017b\)](#) have produced similar results. We argue that such a difference should be expected since empathy is a trait that many school mental health programmes seek and achieve to enhance in students (e.g., [Kourmoussi et al. 2018](#); [De Acedo Lizarraga et al. 2003](#); [Goldstein and Glick 1994](#)). Therefore, teachers have to practice and role-model it as well. Moreover, training for such programmes' implementation generally enhances such teachers' skills, since it often includes modeling and roleplaying of useful techniques and strategies ([Han and Weiss 2005](#)).

The presented study also revealed that holding higher degrees (Masters and/or Ph.D.) predicts better sensing ability. Such a finding has not been mentioned by other researchers of the field. We offer as a possible explanation that in higher studies students learn to search and analyze problems and situations better, and therefore they learn to detect both explicit and implicit information; higher education after all helps in acquisition of critical thinking ([Mines and King 1990](#); [Tümekaya et al. 2009](#)) and investigating skills' development ([Tümekaya et al. 2009](#)). Where Greece is concerned, teachers who pursue post-graduate studies usually attend psychology and education courses. Consequently, the chance that they receive training in active listening skills is increased.

Students in need of special education seemed to constitute another factor associated with their teachers' better sensing ability. It could be hypothesized that teachers who have students with difficulties in communication may tend to develop higher sensing skills in order to understand them better and communicate with them effectively.

Educators' ability to attend to all of the explicit and tacit information expressed by the speaker was also found to be associated with their specialty; with elementary teachers as the reference group, mathematicians and physicists scored lower. To our knowledge, similar findings have not been mentioned by other researchers. A possible explanation, which concerns the undergraduate studies in Greece, is that students of science faculties are not taught sufficient—if any—pedagogical courses. We believe that being trained in ways of logically approaching and analyzing things, possibly limits their ability to identify other elements included in communication, such as nonverbal clues. On the other hand, kindergarten teachers, elementary school teachers and literature teachers have been taught poetry, philosophy, and text analysis. They have been trained to enter the main characters' position of the literary texts and thus empathize with them. They have also been trained to pay close attention to their students' opinions in order to understand their thoughts.

4.1.2. Processing Subscale

Our study analyses showed that years of teaching and higher studies, job position and mental health promotion training, and also gender, number of residents in the area of teaching, as well as having support from colleagues when needed were found in order of effect associated with the Processing subscale of the AELS, namely synthesizing and recalling the given information. The first two factors, working experience and higher education, which both seemed to help teachers the most to synthesize and remember the received information, have already been associated with cognitive and perceptual abilities in adults ([Avolio and Waldman 1994](#); [Salthouse 1994](#)). This association implies better information processing skills. Likewise, higher levels of education have been strongly associated with memory ([Arbuckle et al. 1986](#); [Perlmutter 1978](#)) and with cognitive performance in general ([Levy 1994](#)), a fact that contributes to the explanation of our finding concerning synthesizing and recalling of information.

Higher job position, which in our study also seemed to predict improved performance in processing information provided by the speaker, has been associated with memory cognitive skills as well ([Avolio and Waldman 1994](#)). Moreover those holding higher level positions have been found to

exhibit better communication and listening abilities (Davenport Sypher et al. 1989). Where Greece is concerned, all teachers—principals or not—attend the same undergraduate studies. In order to get an administrative position, however, a teacher has to have higher degrees. This fact provides another reason for the explanation of the job position's association with processing information.

Another predictor of better synthesizing and recalling the given information was mental health promotion training. No relevant findings have been reported since that factor has been poorly investigated; however, we suggest that the trained teachers' better performance could be explained by the fact that this kind of training improves problem solving abilities in teachers (Kourmoussi et al. 2016) which in turn require organizing information skills.

The female gender seemed to also predict better performance on remembering and synthesizing given information. Our finding could be explained by the fact that women have been found to be better listeners (Briton and Hall 1995; Broverman et al. 1972; Napier and Taylor 2002; West 1995) and possess better perceptual abilities (Avolio and Waldman 1994).

Teachers of areas with small number of residents also appeared to be more effective listeners since they performed better in information processing. We believe that the less populated an area, the more possible it is for teachers to be acquainted with students and their families and therefore the more motivated they would be to pay closer attention to the things said by them; personal relations seem to facilitate synthesizing and recalling information during interpersonal communication. Moreover, in Greek small provincial towns polite manners dictate interpersonal communication that includes not only greetings and chatting, but also showing genuine concern and offering of assistance to everyone who needs it.

Support from colleagues was also positively related to better processing performance. Being a buffer for occupational stress (Kourmoussi and Alexopoulos 2016; Montgomery and Rupp 2005) and also a factor that improves teachers' wellness (Pisanti et al. 2003; Pomaki and Anagnostopoulou 2003), it can be assumed that support at work can provide teachers with the calmness and composure needed to listen and understand their co-speakers' concerns.

4.1.3. Responding Subscale

Regarding the ability to use verbal and nonverbal means to clarify things and indicate attention, namely the ability investigated by AELS' Responding subscale, gender, age, higher studies and training in mental health promotion, followed by the teaching grade, were found to be associated with it in order of effect. Women performed better, indicating that they not only tend to be more empathetic listeners (Hojat et al. 2002; Hojat et al. 2002), but they are better in the use of responding active listening skills (Fassaert et al. 2007) and communicative skills (Hamidi and Barati 2011) as well. As for age, those who performed better on responding were the younger teachers and not the older ones, who appeared to better understand expressed and tacit information in the presented study. A study by Suzuki Laidlaw et al. (2006) has also shown that the younger health professionals are the better their communication performance is in general. In our opinion, this could be attributed to younger people's impulsivity shown in many life aspects (e.g., Deakin et al. 2004; Fein et al. 2007; Reimers et al. 2009; Williams et al. 1999); younger people probably tend to respond more spontaneously and express more openly their need to clarify things, and thus appear to respond better during interpersonal communication. Another possible explanation could be that older educators might have not had the chance to get acquainted with active listening skills' enhancement, since such training has not been offered until lately in Greece.

Higher studies also predicted better performance in responding, a finding compatible with research that has shown communicative adequacy of responses in speaking tasks according to educational level (Kimberley and Hulstijn 2011). Training in mental health promotion was found to relate to better responding tactics as well. This finding was somewhat expected since communicative skills constitute an important part of mental health promotion programmes (Kaminski et al. 2008; Puura et al. 2002; Ragozzino et al. 2003). Regarding the educators' speciality with elementary teachers

as the reference group, mathematicians, physicists, and other secondary education specialty teachers, scored lower in Responding subscale. It can be concluded that those teachers' undergraduate studies lack training in listening skills and communicative skills in general.

4.2. Factors Associated with ALAS Subscales

4.2.1. Listening Attitude Subscale

Analysis performed to identify independently associated factors with ALAS dimensions showed that concerning unconditional positive regard as investigated by the Listening attitude subscale, the factors which were significantly and independently associated with it were in order of effect training in mental health promotion and having support from colleagues when needed, followed by higher studies (Masters and/or PhD). An explanation for the school mental health promotion programmes' training impact is that they guide teachers to accept all students with a positive regard and to receive all opinions without criticism (Kourmoussi et al. 2018), like health education and mental health education generally dictate (Glanz et al. 2008; Mori 2000).

Support from colleagues at the workplace seemed to lead to similar results. It could be hypothesized that when teachers receive support at work, which is defined by (Brough and Pears (2004) as the provision "of emotional concern or empathy, practical assistance, information support or appraisal" (p. 472) they are expected to offer it to others themselves, thus practice positive regard attitudes. As for higher studies which also appeared to predict positive acceptance of the speaker on behalf of the listener, the impact of higher education on perceptual abilities (Avolio and Waldman 1994; Salthouse 1994) which was mentioned previously, offers an explanation for this finding.

In regard to the educators' specialty, with elementary teachers as the reference group the only significant difference in Listening attitude subscale was noted in the teachers of English as a foreign language, who scored significantly higher. This finding could be explained by the fact that foreign language teachers have to listen closely to their students and wait till they have finished their sentences, in order to effectively understand the correctness of it and the information conveyed. Moreover, listening is a skill that these teachers teach during their courses (Feyten 1991), so they have to role-model and practice it themselves.

4.2.2. Listening Skill Subscale

With reference to technical aspects of active listening and empathy related ones, as explored by the Listening skill ALAS subscale, gender, mental health promotion training and job position, having students that needed special education according to specialists, and educational level, were found to be independently associated with it in order of effect. As for the association of the female gender with better performance in active listening techniques, as already discussed, similar findings have been reported in active listening measures' validation studies (Kourmoussi Ntina et al. 2017a, 2017b), while other researchers have concluded that women are more empathetic (Spreng et al. 2009; Toussaint and Webb 2005; Youssef et al. 2014) and listen more effectively than men (Christov-Moore et al. 2014; Rueckert and Naybar 2008; Rueckert et al. 2011; Thompson and Voyer 2014).

Mental health promotion training also appeared to predict better active listening techniques when investigated by the ALAS scale. Again, as discussed above, such training incorporates communicative skills (Kaminski et al. 2008; Puura et al. 2002; Ragozzino et al. 2003) and includes modeling and roleplaying of relative useful techniques and strategies (Han and Weiss 2005). Job position was also identified as a predictor for better active listening performance through the Listening skill subscale, confirming the finding that those occupying higher level positions possess better communication abilities (Davenport Sypher et al. 1989). Having students in need of special education appeared associated with better performance in Listening skill as well; it seems that the teachers who deal with such students possibly tend to develop more empathy and better listening skills in order to be able to understand them better.

Higher degrees also appeared to predict better Listening skill performance. A possible explanation for this finding—previously mentioned—is that during post graduate studies students get trained to search, analyze, problem solve, and investigate (Tümkiye et al. 2009), which could result in improvement of their listening and sensing skills. Furthermore, teachers' post graduate studies in Greece mostly concern psychology and education courses, thus increase chances of improving active listening skills. Regarding the educators' specialty, with elementary teachers as the reference group, mathematicians scored lower. This finding is similar to the one produced by the AELS analysis of the presented study. A possible explanation already given previously is that the content of science studies, at least as far as Greece is concerned, does not include pedagogical courses or other courses which would help students develop interpersonal understanding and communicative skills.

4.2.3. Conversation Opportunity Subscale

With respect to the listener's availability and accessibility by others as investigated by the Conversation opportunity ALAS subscale, the factors found to be independently associated with it in order of effect were gender, age, and years of teaching. Women's better performance corroborates the finding of other researchers who have reached the conclusion that females are better in the use of active listening skills (Fassaert et al. 2007) and communicative skills (Hamidi and Barati 2011). As for increased age, which also seemed to predict better performance on Conversation opportunity, this finding also coincided with the one produced by the presented study's analysis concerning AELS' subscale of Listening skill but contradicted the one produced by the analysis concerning AELS' subscale of Responding. It seems that the older the educators, the more available and accessible they are, and the better they understand expressed and unexpressed concerns by the speakers. Moreover, they are the ones to whom the younger ones turn in order to seek advice and help when they need it. Still, the younger ones appear to be more efficient in the use of active listening techniques, possibly because they tend to respond more impulsively and engage more in talking.

The fact that increased years of teaching also predicted better performance on Conversation opportunity implies that listeners' availability and accessibility can be improved both by age and experience. Regarding the educators' specialty, with elementary teachers as the reference group, mathematicians scored lower in Conversation opportunity ALAS subscale. Again, it would be safe to conclude that science undergraduate studies that do not include pedagogical courses or training in communication limit the chances of the teachers to develop active listening skills in order to engage in fruitful interpersonal communication.

5. Strengths and Limitations

The main strengths of the presented study are its large sample and the diversity of the participating educators regarding the teaching grade, their specialty, their teaching experience, and the Greek prefectures in which they worked. Furthermore, the percentage of the study participants' representation concerning gender, mean age, mean working years, working status, teaching grade, specialty, and geographical region was identical with the one published by the Greek Statistical Authority for educators of the 2015–2016 academic year (Greek Statistical Authority 2016). That, together with the fact that all Greek school units are officially linked to the Panhellenic School Network and therefore all educators had access to our survey, can characterize our sample as representative. However, in the presented study limitations can also be identified. Given that the design of the study was cross-sectional, we are not able to produce causal results. Another weakness of this study—though a remote one due to the length of the study questionnaire—is the possibility of participants having completed more than one questionnaire. It should also be noted that cultural factors may have influenced the results of our study, as described in the Discussion section.

6. Conclusions

The results of the presented study support our main hypothesis that personal and work-related factors such as gender, age, job position, years of teaching, higher studies, mental health promotion training, and support from colleagues can predict teachers' performance in active listening.

Our findings have identified enhancing factors and therefore underline the need (a) to design appropriate and specialized training interventions for teachers who are already practicing their profession, taking into account their specialty and the relevant demands, and (b) to include counseling skills' training in educators' undergraduate studies in order to improve all active teaching population's communicative and active listening skills. More specifically, the identification of mental health promotion training as an enhancing factor could significantly contribute to designing training that can simultaneously benefit teachers' skills and students' psychosocial well-being.

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