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## Research Paper

# Differences in self-advocacy among hard of hearing and typical hearing students

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## ABSTRACT

**Background:** Self-advocacy is considered a protective factor of psychosocial and academic problems among students with special needs.

**Aims:** To assess self-advocacy among students with hearing loss and compare it to that of typical hearing students.

**Methods and procedure:** The current study examined 27 hard of hearing (hh) students and 27 typical hearing students, all studying in mainstream classes. They completed the Hope Scale, a self-esteem scale, a self-efficacy scale, and a measure of self-advocacy statements. Data regarding the hh participants' spoken language abilities were collected through their itinerant teachers.

**Outcomes and results:** HH students reported lower levels of self-esteem than the typical hearing students. Emotional self-efficacy was positively correlated with age among the hh students, and hope and effort were negatively correlated with age among typical hearing students. Some significant positive correlations emerged among the hh participants between their syntactic and pragmatic abilities and several self-advocacy indicators.

**Conclusions and implications:** Interventions aimed at enhancing self-advocacy among hh students should focus on intensifying their self-esteem as well as their syntactic and pragmatic abilities.

## 1. Introduction

Self-advocacy is speaking up or taking action for oneself. It includes defending one's rights and fighting for appropriate services (Williams & Shoultz, 1982). Thus, the acquisition of effective communication skills is paramount for successful self-advocacy (Schoffstall, Cawthon, Tarantolo-Leppo, & Wendel, 2015). Students with hearing loss who are mainstreamed may encounter various challenges during their school years (e.g., Marschark & Albertini, 2004). Good self-advocacy skills may assist them in handling such challenges. However, since many of them face acute communication barriers, their ability to express their needs and preferences to others may be impaired (e.g., Eriks-Brophy et al., 2006).

Only few studies have examined self-advocacy among students with hearing loss in general and mainstreamed students in particular and most of them focused on self-advocacy interventions and not on children's skills per se (e.g., Luckner & Muir, 2002). In addition, most of these studies related to self-advocacy as a one-dimensional construct and not as a complex one, as suggested by leading scholars in this domain (e.g., Kozminsky, 2004; Test, Fowler, Wood, Brewer, & Eddy, 2005). Furthermore, no comparison was made with individuals with typical communication skills. Consequently, the knowledge about the ability of students with hearing loss to advocate for themselves is limited. The current study adopted a broad conceptualization of self-advocacy (Kozminsky, 2004) and examined various aspects of self-advocacy among hard of hearing (hh) students in comparison with typical hearing students studying

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### 1.1. Self-Advocacy

Self-advocacy is considered a developmental process in which the individual gradually gains confidence in expressing ambitions and emotions, taking responsibility over his or her life (Kozminsky, 2004). In general, there are two types of self-advocacy: group self-advocacy and personal self-advocacy. Group self-advocacy includes joint activities of people with similar needs which are aimed at promoting social justice for the whole group. In contrast, personal self-advocacy includes actions of an individual, such as expressing thoughts or emotions in an assertive way, developing the ability to choose and decide, acknowledging formal and informal rights, and making changes in the environment. In this type of self-advocacy, the individual is not part of a group and the advocacy act is perceived as a natural and obvious action based on the assumption that a person is responsible for his or her own choices in life (Kozminsky, 2004; Zegar & Baumann, 2012). The current study focused on personal self-advocacy.

Different scholars have addressed the issue of self-advocacy with most of them tending to focus on only one specific aspect. Weiner (1985), for example, described the motivation for self-advocating. He suggested that people tend to look for the causes of their successes and failures. Individuals who perceive their successes and failures as processes which are related to their own planning and efforts, have stronger motivation to engage in activities which will help them attain future success. Ellis (1962) emphasized the diverse ways in which people respond to the same or similar events. This diversity is largely the result of differences in cognition or belief systems and may impact individual behavior, including the action of self-advocacy. Yuan (1994) focused on the actual action of self-advocacy. He proposed a structured way of verbalizing self-advocacy statements. First he suggested using a positive statement aimed at attracting the listener's attention and expressing a readiness to progress, then a statement describing the individual's difficulties and problems and the way in which they affect his or her behavior, and finally a statement suggesting a solution which takes into account personal and environmental resources and difficulties. For example, if a hh student in a mainstream class finds it difficult to follow an assignment's instructions which are given orally, he or she may approach the teacher and phrase a request accordingly: "I want to be sure I will do the assignment according to your instructions (a positive statement), but I find it difficult to follow and remember them when they are given orally (difficulty description). Could you please write them down (a suggested solution)?"

More recently, Test and colleagues (Test et al., 2005) proposed a model of self-advocacy involving four components: two related to knowledge (knowledge of self and knowledge of rights) and two related to skills (communication and leadership). According to this model, in order to self-advocate individuals should first know and understand themselves; then, they need to communicate this knowledge effectively to others; and finally, by developing leadership skills, they can move from individual self-advocacy to advocating for a group of individuals with common concerns.

Another model put forth by Kozminsky's (2004) suggests three components that are essential in order for individual self-advocacy to occur: *knowledge*, *motivational features*, and *skills*. The knowledge component includes personal knowledge (of one's special needs, difficulties, and strengths), as well as environmental knowledge (regarding one's rights, duties, and existing facilities which may help a person to advocate himself or herself). The motivational features component includes characteristics essential for self-advocacy such as self-determination, self-efficacy, self-esteem, and internal locus of control. The skills component includes skills that ensure the efficiency of the self-advocacy act such as goal setting, decision-making, self-control, problem solving, working with others, assertive communication, and the use of self-advocacy statements. Since Kozminsky's model was more comprehensive in nature, including not only components of knowledge and skills but also motivational features which are considered the fuel of self-advocacy (Kozminsky, 2004), and since understanding of the relationships between these three components is limited, the current study adopted Kozminsky's conceptualization of self-advocacy. Specifically, we examined the knowledge component through awareness of strengths, the motivational features component through self-esteem and self-efficacy, and the skills component through the usage of self-advocacy statements.

Self-advocacy is especially important when considering students with special needs in general and those attending mainstream classes in particular, since it is considered one of the most efficient ways to promote and encourage the social integration of these students (Pitlyk, 2007). Additionally, most teachers in general settings are usually less trained to work with students with special needs and have more difficulty including them. Indeed, a number of studies reported teachers' concerns regarding their own professional competence and knowledge for the successful inclusion of students with disabilities in their classrooms (Forlin, 2001; McLeskey & Waldron, 2002; Sharma, Forlin, Loreman, & Earle, 2006). Consequently, students with disabilities in mainstreamed classes may have a greater need for self-advocacy than students in special education classes. The current study focused on hard of hearing (hh) students attending mainstream classes.

### 1.2. Self-advocacy among HH students

Although there are audiological criteria for being hh, the current study adopted a more functional and social definition of this concept in which a person with hearing loss who prefers to communicate through spoken language and places more importance on blending into the hearing world than being part of the Deaf community is perceived as hh (e.g., Michael, Cinamon, & Most, 2015). Indeed, students who are hh tend to study in mainstream classes and to use spoken language as their main mode of communication (e.g., Allen, 1992; Mitchell & Karchmer, 2011).

Studying in a mainstream school can be quite challenging for students with hearing loss if only because of the mere fact that they are often the only children with hearing loss in the entire school (Pitlyk, 2007). Although integration of students with hearing loss in mainstream classes may contribute to them academically as well as socially (e.g., Antia, Jones, Luckner, Kreimeyer, & Reed, 2011), it

may also be accompanied by emotional distress. For example, environmental conditions such as group instruction, background noises, students whispering, and lack of consideration of hh students' special needs may isolate these students from their peers (Kent & Smith, 2006). Several strategies have been proposed by scholars in order to facilitate the integration of hh students in mainstream classes such as programs for communication skills development (e.g., Suarez, 2000) and joint activities for students with and without hearing loss (Cambra, 2002). A leading strategy for supporting these students is the implementation of self-advocacy interventions.

In general, regardless of strategy type, better coping was found among older students (Martin & Bat-Chava, 2003). This may be related to greater life experience and/or increased demands in the classroom. According to Foster (1998), for example, children who have experience in encountering challenges and successfully coping with them will gradually learn to adapt to changes more easily.

Zegar & Baumann (2012) claim that students with hearing loss must learn to act for themselves so they will not miss academic and social information. Teaching children with hearing loss self-advocacy skills is extremely important and thus should be done as early as possible. They suggested encouraging young children to draw their teacher's attention to situations in which they have difficulty following what is said in class, such as when they cannot see the teacher's face or when their hearing device is malfunctioning. However, one should also take into consideration environmental factors which may impact children's sense of efficacy to self-advocate such as parental perceptions and cultural norms and values. For example, Crabtree (2007) found that Arab fathers of hh children reported feelings of shame to the point where they did not want to be seen in public with their child. This tendency may cause Arab hh children to feel less confident in their ability to express their needs and preferences.

Indeed, the few studies which examined self-advocacy skills among students with hearing loss in mainstream classes suggested that these skills are largely influenced by the students' environment, including their relationships with their parents, teachers, and other authority figures. It seems that through proper guidance these children are able to develop good self-advocacy skills and realize their rights (Luckner & Muir, 2001; Test et al., 2005). However, not much is known regarding their initial ability to self-advocate and whether there are specific aspects of self-advocacy in which they may encounter difficulties.

Self-advocacy is expressed through verbal communication and is based on pragmatic skills (Kozminsky, 2004). Thus, when examining self-advocacy, it is important to take into account the difficulties that many students with hearing loss tend to have in spoken language such as relatively poor vocabulary (Bishop & Mogford-Bevan, 1993) and phonological and grammatical skills (Delage & Tuller 2007). These difficulties may impact their development, their general knowledge, and their learning processes (Moore & Meadow-Orlans, 1990; Marschark, Lang, & Spencer, 2011), as well as their emotional health and social integration (Fellinger, Holzinger, Beitel, Laucht & Goldberg, 2009).

The current study examined self-advocacy among Israeli Arab students with and without hearing loss who were mainstreamed in general education classes. It should be noted that children with hearing loss who are Arabic speakers are subject to an even more complicated linguistic condition due to the diglossia of the Arabic language (i.e., the gap between the spoken and the literary language). This condition causes the need to cope with two completely different languages (Ibrahim, 2009).

Following studies on better coping and communicative skills among older students (Martin & Bat-Chava, 2003), age differences were also examined. In addition, the spoken language abilities of the hh students was taken into account in light of the importance of verbal communication in self-advocacy acts (Kozminsky, 2004).

Based on Kozminsky's (2004) model which proposed three components of self-advocacy (knowledge, motivational features, and skills), the first research hypothesis was that aspects of these components will be inter-related. Specifically, we assumed that awareness of strengths, self-esteem and self-efficacy, and mastery in self-advocacy statements will be positively correlated both among hh students and typical hearing students. In light of their possible difficulties, the second research hypothesis was that hh students will report lower levels of self-advocacy on all components compared to their hearing peers: they will be less aware of their strengths, will have lower self-esteem and self-efficacy, and will exhibit lower levels of mastery in statements promoting self-advocacy. A third hypothesis was that older hh student will report higher levels of self-advocacy, and a fourth hypothesis was that hh students with better functioning in spoken language will report higher levels of self-advocacy.

## 2. Materials and method

### 2.1. Participants

Participants were 54 Israeli Arab students aged 11–15 ( $M = 12.59$ ,  $SD = 1.37$ ) in grades 5–9. Twenty-seven were hh and 27 had typical hearing. In each group there were 17 boys and 10 girls and they were equally distributed across grades. All participants attended general education classes in Arabic speaking schools in Israel and did not participate in any self-advocacy intervention. The hh students used only spoken language as their mode of communication. They received additional support once or twice a week from an itinerant teacher, whose specialty was deaf and hh education, in order for them to keep at pace with the general curriculum. This support had been provided for them for at least five years and typically focused on relevant vocabulary and world knowledge which these children often lacked due to their hearing loss. Table 1 presents additional data concerning the hh group.

### 2.2. Measures

#### 2.2.1. Measures of self-advocacy

2.2.1.1. *Awareness of strengths.* Awareness of strengths was measured by the Hope Scale (Snyder, 2002), a questionnaire aimed at assessing personal strengths and resources that serve as a basis for investing effort for the realization of goals. The original questionnaire includes six items divided into two factors: pathways thinking (i.e., perceived capacity to find routes to goals) and

**Table 1**  
Demographics of the HH Group (n = 27).

Variable	Value	Frequency	%
Degree of hearing loss	Mild	6	22.2
	Mild-Moderate	2	7.4
	Moderate	9	33.3
	Moderate-Severe	2	7.4
	Severe	5	18.5
	Profound	3	11.1
Hearing loss onset	Pre-lingual	18	66.7
	Post-lingual	9	33.3
Hearing device	Hearing aid	17	63.0
	Cochlear implant	4	14.8
	None	6	22.2

agency thinking (i.e., the motivation to use those routes) and has been used among students with and without disabilities (e.g., Lackaye, Margalit, Ziv, & Ziman, 2006). Meltzer and colleagues (Meltzer, Reddy, Pollica, Roditi, Sayer, & Theokas, 2004) added four items measuring effort and examined this measure among students with disabilities. The response scale of each item ranges between one (“never”) and six (“always”). Due to relatively low reliability scores of the pathways thinking and agency thinking factors in this study ( $\alpha = 0.47$  and  $\alpha = 0.57$  respectively), factor analysis was conducted. The analysis yielded two factors with one item with similar loadings on both factors. Consequently, this item was deleted. Based on item content, the two factors were considered as measuring awareness of two abilities (or strengths): *academic effort* and *problem solving*. Alphas coefficients for these factors were 0.75 and 0.64, respectively. Internal consistency for the whole scale was 0.78.

**2.2.1.2. Self-Esteem.** Self-esteem was assessed through the *Rosenberg’s Self-Esteem Scale (1965)*, which was found to be suitable for participants with hearing loss (e.g., Lu et al., 2015). This scale includes 10 items which are rated on a four-point Likert scale from “Strongly disagree” to “Strongly agree” with higher scores indicating better self-esteem. The original internal consistency was 0.88. In the current study internal consistency was 0.68.

**2.2.1.3. Self-Efficacy.** The Self-Efficacy Questionnaire for Children (SEQ-C; Muris, 2001) was used in order to measure participants’ self-efficacy. Although not previously administered to individuals with hearing loss, this measure was reported suitable for diverse samples including minorities and children from low SES background who may also face language difficulties (e.g., Suldo & Shaffer, 2007). It is a 24-item scale divided into three factors: social self-efficacy (the perceived capability for peer relationships and assertiveness), academic self-efficacy (the perceived capability to manage one’s own learning behavior, to master academic subjects, and to fulfill academic expectations), and emotional self-efficacy (the perceived capability of coping with negative emotions). Each item is scored on a 5-point scale with 1 = *not at all* and 5 = *very well*. Muris reported Cronbach’s alphas of 0.88 for the whole questionnaire and between 0.85 and 0.88 for each of the sub-scales. In the current study, alphas were 0.86 for the whole questionnaire and between 0.74 and 0.78 for the different sub-scales.

**2.2.1.4. Mastery in self-advocacy statements.** In order to examine participants’ ability to phrase self-advocacy statements, six scenarios were written by the second author who is an experienced teacher of hh students. These scenarios are partly based on the contents of a virtual self-advocacy course for hh students who study in mainstream classes (<https://sites.google.com/a/lakash.tzafonet.org.il/main/singur>). Three of the scenarios focus on academic situations and three focus on social situations (Appendix A).

For each scenario participants were requested to answer two questions: (a) “In your opinion, what should the student do in order to solve the situation?” and (b) “Tell me exactly: What should the student say?” Answers to the first question received either 0 (when there was no mentioning of self-advocacy) or 1 (when participants included in their answers actions of self-advocacy, i.e., speaking up or taking action for themselves). Scores of answers to the second question ranged between 0, when statements did not include any aspect of self-advocacy, and 3, when statements included all three types of statements that are part of Yuan’s (1994) model of efficient self-advocacy statements (a positive statement, a statement which describes the problem, and a suggested solution). Thus, the minimum overall score was 0 and the maximum score was 4.

For inter-rater reliability purposes, a third of the scenarios were coded separately by three coders: the two authors and an additional expert in deaf education. After the coding process was over, the level of agreement between evaluators was calculated. Disagreement was apparent only in relation to 3.3% of the coding. A discussion among the evaluators determined the final coding of the few cases in which there was disagreement. An internal reliability analysis revealed an internal consistency of 0.62 for the entire measure and 0.64 and 0.79 for advocacy in academic situations and in social situations, respectively.

## 2.2.2. Demographics

Data regarding participants’ characteristics such as age and gender were collected through their parents. Parents of students with hearing loss also provided information about the severity of hearing loss, use of hearing device, main mode of communication, the existence of other family members with hearing loss, type of mainstreaming, and subjects in which the students received additional

support.

### 2.2.3. Spoken language abilities

The language level of the hh participants was assessed by their itinerant teachers. The teachers graded their students' overall abilities in vocabulary, syntax, pragmatics, and speech intelligibility on a scale between 1 ("not good at all") and 6 ("excellent"). These domains were chosen since they were considered as most relevant for self-advocacy by an external expert in deaf education. The self-advocacy literature also mentions language abilities as important for good self-advocacy such as pragmatics and other verbal behaviors necessary for good communication (e.g., Lock & Layton, 2001; Van Reusen, 1996).

### 2.3. Procedure

After receiving approval from the Ministry of Education, students with hearing loss were approached through the treatment center for students with hearing loss in the city of Tiberias which is responsible for all deaf and hh students living in northern Israel. Out of 80 students between the ages of 11 and 15 enrolled in this center, 27 students and their parents agreed to participate. Thus the return rate was about 34%. The students with typical hearing also lived in northern Israel and were chosen through personal acquaintance and the use of snowball sampling. All of them were reported as having typical development. They were matched by age and gender with the hh participants. All participants and their parents assured they had not previously taken part in a self-advocacy intervention. Both parental and child consent was obtained before the study began.

Students and their parents received explanations about the questionnaires by the second author who administered the research questionnaires. The students completed the measures of self-advocacy indicators (awareness of strengths, self-esteem, self-efficacy, and mastery in self-advocacy statements) and the parents completed a background questionnaire on their child. Research questionnaires were administered individually in a quiet place in the participants' homes. The students and their parents were assured that they could drop out from the study at any time. Each encounter lasted between 30 and 45 min. A form for the general assessment of the hh students' spoken linguistic functioning in the four domains mentioned above was sent to their specialist teacher in deaf education. All teachers completed the form.

### 2.4. Data analysis

Statistical analysis was conducted using the Statistical Package for the Social Sciences Version 21.0 (SPSS Inc., Chicago, IL, USA). The baseline demographics were compared by descriptive analysis. Pearson correlations were used to calculate relationships between aspects of self-advocacy (awareness of strengths, self-esteem and self-efficacy, and mastery in self-advocacy statements) and to examine the relationships between students' age and self-advocacy. Independent samples *t*-tests were applied to compare differences between the hh group and the typical hearing group on the indicators of self-advocacy. Spearman correlations were used to examine relationships between students' language levels in the four domains (vocabulary, syntax, pragmatics, and speech intelligibility) and the different self-advocacy variables.

## 3. Results

The first study goal was to examine the relationships between aspects of self-advocacy: awareness of strengths, self-esteem and self-efficacy, and mastery in self-advocacy statements. Correlations which were calculated for each of the two study groups (students with and without hearing loss), revealed some significant results (see Table 2).

As hypothesized, significant correlations between the different self-advocacy indicators were found within each study group. Among the hh group significant positive correlations were found between most of the awareness of strength variables and most of the self-efficacy variables; between self-esteem and the awareness of strength variables; and between self-esteem and most of the self-efficacy variables. Among the typical hearing group similar significant correlations were found except for self-esteem, which was positively correlated only with one self-efficacy variable (academic self-efficacy) and with two of the three awareness of strength variables. Mastery of self-advocacy statements were not significantly correlated with the other indicators in either group.

Comparisons between correlations among the two study groups revealed only one significant difference which was between problem solving and emotional self-efficacy ( $Z = -1.99, p < 0.05$ ). As can be seen in Table 2, a higher correlation between these two variables was found among the typical hearing group.

The second research goal was to explore differences between the hh group and the typical hearing group on the indicators of self-advocacy. A significant difference was found in self-esteem [ $t(52) = 4.61, p < 0.001$ ]. As presented in Table 2, student with hearing loss reported lower self-esteem than students with typical hearing.

The third goal of the study was to examine the relationships between students' age and self-advocacy. Indeed, some significant correlations were found within each of the study groups. Among the hh students, significant positive correlations were found between participants' age and their emotional self-efficacy ( $r = 0.46, p < 0.05$ ) and general mastery in self-advocacy statements ( $r = 0.38, p < 0.05$ ). Among the typical hearing students, significant negative correlations were found between their age and their general awareness of strengths ( $r = -0.39, p < 0.05$ ) and academic effort ( $r = -0.43, p < 0.05$ ). Comparisons between correlations among the two groups revealed significant differences in the correlation between age and emotional self-efficacy ( $Z = -3.03, p < 0.01$ ) and between age and general awareness of strengths ( $Z = -2.09, p < 0.05$ ). Whereas a stronger correlation was found between age and emotional self-efficacy among the hh students, a stronger correlation was found between age and general awareness



**Table 2**

Means, Standard Deviations, and Inter-Correlations between the Self-Advocacy Variables among the Hard of Hearing (n = 27) and the Typical Hearing (n = 27) Participants.

Variable	Group	M	SD	2	3	4	5	6	7	8	9	10	11
1. General awareness of strengths	HH	4.75	0.60	0.82***	0.81***	0.69***	0.53**	0.62**	0.42*	0.23	0.14	0.13	0.19
	TH	4.83	0.76	0.70***	0.88***	0.45*	0.73***	0.57**	0.59**	0.61**	0.05	0.05	0.07
2. Academic effort	HH	5.04	0.75		0.34	0.57**	0.51**	0.51**	0.50**	0.21	0.21	0.06	0.29
	TH	5.13	0.85		0.28	0.31	0.46*	0.21	0.64***	0.29	0.16	-0.15	0.13
3. Problem solving	HH	4.55	0.67			0.51**	0.32	0.47*	0.15	0.15	0.01	0.20	0.02
	TH	4.59	0.96			0.40*	0.67***	0.61**	0.37	0.62**	-0.08	0.19	-0.02
4. Self-esteem	HH	3.31	0.32				0.46*	0.46*	0.46*	0.14	0.05	0.10	0.10
	TH	3.66	0.24				0.37	0.21	0.40*	0.24	-0.27	0.19	-0.20
5. General self-efficacy	HH	3.79	0.58					0.84***	0.89***	0.72***	0.09	0.35	-0.11
	TH	3.89	0.49					0.87***	0.74***	0.82***	-0.02	0.05	-0.09
	Total	3.84	0.53					0.85***	0.82***	0.77***	0.04	0.18	-0.10
6. Social self-efficacy	HH	3.84	0.77						0.68***	0.32	0.02	-0.22	0.19
	TH	3.94	0.61						0.46*	0.62**	-0.02	0.14	0.05
7. Academic self-efficacy	HH	4.06	0.64							0.52**	0.01	-0.35	0.34
	TH	4.04	0.50							0.41*	0.04	0.03	0.06
8. Emotional self-efficacy	HH	3.52	0.83								0.17	0.02	0.37
	TH	3.69	0.78								0.05	0.07	0.07
9. General mastery in self-advocacy statements	HH	2.54	0.56									0.63***	0.63***
	TH	2.58	0.67									0.45*	0.96***
10. Academic self-advocacy	HH	2.53	0.35										-0.08
	TH	2.58	0.63										
	Total	2.56	0.64										0.48***
11. Social self-advocacy	HH	2.57	0.56										
	TH	2.54	0.72										

Note. HH = hard of hearing; TH = typical hearing.

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

\*\*\*  $p < 0.001$ .

of strengths among the typical hearing students.

The fourth study goal was to explore the relationships between hh students' language abilities in four domains (vocabulary, syntax, pragmatics, and speech intelligibility) and their self-advocacy. Analyses showed significant positive correlations between syntactic abilities and emotional self-efficacy ( $r = 0.43$ ,  $p < 0.05$ ), between pragmatic abilities and general mastery in self-advocacy statements ( $r = 0.56$ ,  $p < 0.001$ ), and between pragmatic abilities and mastery in self-advocacy statements in academic situations ( $r = 0.59$ ,  $p < 0.01$ ).

#### 4. Discussion

The present study examined self-advocacy among hh and typical hearing Israeli Arab students who studied in general education classes. The selection of indicators of self-advocacy was based on Kozminsky's (2004) model which proposes three main components: knowledge, motivational features, and skills. This study examined specific aspects of each component: awareness of strengths in the knowledge component, self-esteem and self-efficacy in the motivational features component, and mastery in self-advocacy statements in the skills component.

##### 4.1. Relationships between self-advocacy components

As hypothesized, significant positive correlations were found for each of the study groups between most of the self-advocacy measures. However, there were no significant correlations between mastery in self-advocacy statements and the other variables. These findings partly support Kozminsky's (2004) model since they imply that at least certain aspects of the knowledge component of self-advocacy (i.e., awareness of strengths) are related to certain aspects of the motivational features component (i.e., self-esteem and self-efficacy). They are also in accordance with Di Giunta et al. (2013) who claimed that students who evaluate themselves better show higher levels of self-efficacy and tend to persist in their efforts to achieve the goals that have been set for them as long as they feel that they are able to cope with the challenges imposed by these goals.

A possible explanation for the lack of correlations between the ability to phrase self-advocacy statements and the other study variables may be due to an essential difference between them. Whereas mastery in self-advocacy statements is an ability which is

expressed in real-life situations, the other variables reflect feelings, beliefs, and personal perceptions. There may be a gap between what individuals think or feel about themselves and their ability to act. As previously suggested (e.g., Eriks-Brophy et al., 2006), since many students with hearing loss face acute communication barriers, their ability to express their needs and preferences to others may be impaired. Thus, it may be that even if such students are aware of their strengths and feel confident and able, they may still suffer from difficulties in acting as their own advocates.

#### 4.2. Differences in self-advocacy

In accordance with the research hypothesis, the hh students reported lower levels of self-esteem as compared with the typical hearing students. However, there were no significant differences between the two groups in the other self-advocacy indicators. The lack of significant differences may be explained by the fact that all hh participants studied in mainstream classes. Previous studies (e.g., Ingber & Beni-Noked, 2010) have emphasized the contribution of mainstreaming to the ability of students with hearing loss to cope with various academic and social tasks. For example, these students are more exposed to spoken language than students in special education settings. This exposure may lead to better literacy skills and better academic and social performance (Cambra, 2002; Luckner & Muir, 2001). In addition, their speech may be more coherent enabling them to express themselves better in a hearing environment than students who use mainly sign language as their mode of communication. Indeed, positive associations have been found in other studies between the use of spoken language and the functioning of students with hearing loss who are enrolled in general education, including their learning processes, general knowledge, and social-emotional and cognitive development (Moores & Meadow-Orlans, 1990; Marschark et al., 2011). An intervening factor may be the type of communication hh students have with their parents. For example, studies have found that Deaf children who have Deaf parents and use sign language as their main mode of communication tend to have relatively good social-emotional adjustment as well as behavioral, academic, and communicative functioning (Polat, 2003; Weisel, 1988). This population was not examined in this study.

Mainstreaming also may expose children with hearing loss to different challenges which may be less apparent in special education settings, such as studying in large classes and communicating in spoken language. These challenges may enhance their awareness of their difficulties, as well as their awareness of their strengths.

Another factor which may explain the lack of differences found between the two study groups in awareness of strengths, self-efficacy, and mastery in self-advocacy statements is the fact that all hh participants received support from an itinerant teacher once or twice a week. Studies have found that such adjunct teachers may help develop students' learning strategies, social skills, and self-advocacy (Antia, Kreimeyer, Metz, & Spolsky, 2010; Luckner & Muir, 2001). Thus, it is possible that the hh participants were similar to the typical hearing ones on most of the self-advocacy indicators in the current study, despite possible communication and language difficulties, due to the support they received from their special teacher.

Despite the potential contribution of mainstreaming to students with hearing loss, it may also be accompanied by emotional distress since these students may feel different from their peers with typical hearing, express feelings of isolation (Leigh, 1999; Stinson, Whitmire, & Kluwin, 1996), social problems (Wolters, Knoors, Cillessen, & Verhoeven, 2011), and encounter difficulties in affective interaction (Weisel & Bar-Lev, 1992). Consequently, even if they feel efficient and are aware of their strengths, their self-value as compared to their typical hearing peers may be relatively low, as found in the current study. Since no comparisons were made in this study between hh students from different educational settings (general vs. special), it is recommended that future studies examine in a more direct manner the contribution of mainstreaming to various aspects of hh student's self-advocacy.

In general, the difference which was found between participants with and without hearing loss in self-esteem is in accordance with previous studies (e.g., Zmiro, Kurtz, & Reiter, 2007) and emphasizes the potential impact that hearing loss may have on individuals' self-esteem. According to Eichngreen and Hofain (2009), children may perceive having a hearing loss as a central trait, which colors their whole personality to a point that other characteristics do not receive sufficient attention. Lebel-Hagai (2011) claimed that persons who grow up having a hearing loss may develop stereotypic perceptions in relation to their situation and consequently suffer from poor self-image and frustration. In contrast, Kemmery & Compton (2014) who examined perspectives of identity related to perceptions of hearing loss among students with hearing loss and their caregivers/parents found self-determined identity types, the notion of identity as a fluid concept, and a sense of management as well as a sense of perseverance. It seems that having a hearing loss may be a possible but not a necessary condition for low self-esteem. Indeed, studies which examined self-esteem among students with hearing loss have reported that self-esteem was associated with the students' personality and not with their degree of hearing loss (Kemmery & Compton, 2014; Warner-Czyz, Loy, Evans, Wetsel, & Tobey, 2015). In fact, Jambor & Elliott (2005) found that students with more severe hearing loss had higher self-esteem. They suggested that among these students hearing loss is perceived as part of their personality and they tend to accept themselves more easily as compared with students with less severe hearing loss.

The lower levels of self-esteem among hh participants may be also explained by cultural factors. As noted above, Crabtree (2007) found that Arab fathers of hh children reported feelings of shame to the point where they did not want to be seen in public with their child. Such behavior may largely influence hh children's self-esteem. Thus, one of the main conclusions from the current study's findings may be that although students with hearing loss are aware that their success depends on their motivation and efforts, and despite relatively high levels of self-efficacy, they still consider themselves inferior to students with typical hearing. In any case, the lower levels of self-esteem found in this study suggest that professionals working with students with hearing loss should pay attention to their inner world and enable them to process emotional issues so they could set aside limited self-perceptions.

### 4.3. Relationships between age and self-advocacy

Some correlations emerged within the study groups between participants' age and their self-advocacy. Among students with typical hearing, older children reported lower levels of awareness of strengths in general and academic effort in particular. A possible explanation may be related to students' understanding that the older they get the tougher their studies become. Indeed, many students report that during the transition from elementary to junior high there is a decrease in their academic functioning, and specifically in their internal motivation, more stress, greater academic competitiveness, and a sense of losing personal control and competence (e.g., [Forgan & Vaughn, 2000](#)). The fact that these correlations were not reported among students with hearing loss may be due to the increasing amount of accommodations they receive as academic demands rise.

Among students with hearing loss, a significant positive correlation was found between age and emotional self-efficacy, a correlation which was significantly stronger in this group than in the typical hearing group. This finding may be explained by the fact that students with hearing loss who study in mainstream classes (as was the case in this study) often receive emotional support and positive reinforcements from professionals working with them (such as their specialist teacher or speech therapist). This support may enable them to process their feelings particularly during sensitive periods such as the transition from elementary to junior high.

Another possible explanation for the correlation which was found between hh students' age and their emotional self-efficacy is also related to the fact that they studied in mainstream classes with typical hearing students. It may be that in order to overcome obstacles imposed by their hearing loss, these students use personal control skills on a daily basis. Consequently, they may develop stronger emotional immunity than their typical hearing peers who do not have to go through the same negative experiences. According to [Galla and Wood \(2012\)](#), strong emotional self-efficacy suggests previous success in monitoring negative emotions, which may explain why students with hearing loss exhibit higher levels of emotional efficacy as they grow older.

### 4.4. Spoken language abilities and self-advocacy among HH participants

As hypothesized, the hh students' language abilities were related to some of the self-advocacy components. Specifically, significant positive correlations were found between their syntactic abilities and emotional self-efficacy, between their pragmatic abilities and their general mastery in self-advocacy statements, and between their pragmatic abilities and their mastery in self-advocacy statements in academic situations. These findings follow previous studies which emphasized the importance of language for different types of functioning, including social-emotional and cognitive development, general knowledge acquisition, and learning processes ([Moores & Meadow-Orlans, 1990](#); [Marschark et al., 2011](#)). These findings do not come as a surprise since self-advocacy is expressed through verbal communication and is based on the use of language in a social-communicative context ([Kozminsky, 2004](#)). In addition, studies have reported an association between higher language abilities and better social-emotional skills (e.g., [Nelson, Welsh, Vance Trup, & Greenberg, 2010](#)) which may include emotional efficacy as well.

## 5. Conclusions

In sum, the research findings suggest that although knowledge and motivational features of self-advocacy may be inter-related, the actual ability to phrase self-advocacy statements is more related to variables such as language abilities, at least when examining hh students. The study's results also imply that in order for hh students in mainstreamed oral educational settings to reach at least equivalent self-advocacy skills as children with typical hearing, interventions aimed at enhancing self-advocacy among hh students should focus on intensifying their self-esteem as well as their syntactic and pragmatic abilities.

The current study has some limitations which should be addressed. First, the sample size was relatively small since it was difficult to locate students with hearing loss who did not participate in self-advocacy interventions. Second, although relevant to a large proportion of hh students, the study's findings are limited to hh students from mainstream classes and are not necessarily salient for students in special education settings or in settings where sign language is the primary modality of communication and not spoken language. In addition, the sample included a specific sub-group within Israeli society, i.e., Arab speaking children. Since different social groups may have different attitudes towards individuals with special needs and different perceptions of their abilities (e.g., [Crabtree, 2007](#)), a cross-cultural study on self-advocacy seems essential. Finally, this study included the development of a preliminary self-advocacy skills measure which contained academic and social scenarios. Future studies should further examine this measure and maybe develop a complementary measure with closed items.

Despite the study's limitations its findings are of importance. First of all, in contrast to previous studies which mainly examined the contribution of different self-advocacy interventions to their participants, this study examined the self-advocacy skills of an under-studied group, that is students with hearing loss who had not received any formal guidance in self-advocacy skills. This enabled an evaluation of their basic abilities in self-advocacy that have developed naturally (e.g., [Portman & Portman, 2002](#)). Secondly, the current study employed a comprehensive approach to self-advocacy by referring to three of its components (knowledge, motivational features, and skills) rather than addressing only one aspect (mainly skills) as done in most previous studies ([Roberts, Ju, & Zhang, 2016](#)). Thirdly, the comparisons between participants with and without hearing loss enabled a better understanding not only of the self-advocacy skills of individuals with special needs, but also of individuals with typical development. Fourth, this study examined students' self-reports. Although they may be influenced by social desirability, they also enable these students to speak out and express themselves. Thus, the study's findings shed light on the way hh students feel, think, and assess themselves in situations which require self-advocacy. The fact that participants were similar in their background (e.g., cultural affiliation, main mode of communication, and type of educational institution) strengthens the ability to conclude that the differences and similarities which were found



between the hh study group and the typical hearing group are probably related to hearing status and associated factors rather than to other social and educational variables.

## Appendix A

### Scenarios for Measuring Mastery in Self-Advocacy Statements Academic Situations

1. Yousef had a history test. A few days prior to the test, his teacher explained about the test in class, but Yousef did not hear the whole explanation and consequently went over only part of the material for the test. When the teacher returned his test, she said in front of the whole class: “You got a low grade because you didn’t study for the test. Too bad that you don’t listen in class.”
2. During English class the teacher dictates and spells a lot of words. Since he has difficulties hearing, Rammy has to watch the teacher’s lips while she speaks. The problem is that he has difficulties watching her lips and writing down what she says at the same time.
3. Nadin has difficulties in assignments which require her to express herself orally, such as participating in classroom discussions. She tries to avoid looking at the teacher so she won’t ask her to talk. She claims that when she starts talking, she hears her classmates giggle because her speech is not very clear.

### Social Situations

1. Yesterday, at the end of the last lesson and after the teacher went out of the class, one of the students invited all of the students to her birthday party which was supposed to be held that day at 5:00 pm. Ahmed did not hear what she said and missed the birthday party. This is not the first time that he has missed a social event and the other guys in class are offended by him. The next day, the students asked him why he didn’t come and he didn’t know what to answer them.
2. Samira’s big sister is ashamed to be seen with her because of her hearing aid. When they go out together, she asks her to have her hair down. Samira is very offended by her,
3. Nisim loves gym class. However, when he participates in group games he doesn’t hear the teacher’s instructions and his team mates calling him. Since Nisim sweats a lot during games, he has to take off his hearing aids.

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