

Deaf and hard of Hearing Students' Opportunities for Learning in a Regular Secondary School in Chile: Teacher Practices and Beliefs

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Abstract This study aimed to analyze the learning context of deaf and hard of hearing (D/HH) students in a Chilean high school, in which 50 D/HH students (7th to 12th grade) attend classes together with hearing classmates. Semi-structured interviews were conducted with seven high school teachers and five deaf education teachers, to explore their practices and beliefs regarding teaching D/HH students in regular classrooms. Ten classroom observations were also carried out in classes with and without the presence of a deaf education teacher. Interview data were analyzed using qualitative content analysis. Class observations enabled a better understanding of the context in which D/HH students and their teachers interact daily. Results from interview analysis provided information of teachers' beliefs about D/HH students; regular teachers and deaf education teachers' perceptions of the roles they play in students' learning; accommodations made for D/HH students; and facilitators and barriers for teaching in classes with D/HH students. High school teachers' report of their difficulties to teach D/HH students and their need to rely on deaf education teachers in the classroom was corroborated by classroom observations, which showed that most D/HH students were unable to follow the class in absence of special teacher's support, and regular teachers had problems communicating with them. D/HH students' opportunities for learning are highly restricted in such environment. Implications for educational inclusion policies and teacher preparation programs are discussed.

Keywords Deaf · Students · Teachers · High school · Learning · Inclusion

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Introduction and Background

Policies for inclusion have been developed around the world during the past 30 years. These policies were initially based on the principle of normalization, and therefore aimed to provide individuals with disabilities the same opportunities and life experiences of non-disabled people. When applied to education, these policies motivated the integration of deaf and hard of hearing (D/HH) students in regular schools, as a preferred placement (Byrnes et al. 2002). Several factors have led to a constant increase in the number of D/HH students who are being educated in mainstream settings: financial pressures, parental expectations, technological developments, early detection of hearing loss, efforts aimed to improve conditions for inclusion, among others (Angelides and Aravi 2006/2007; Hintermair 2011). In the US it has been estimated that between 60 % and 85 % of D/HH students are being educated in regular schools (Eriks-Brophy and Whittingham 2013; Reed et al. 2008).

However, the issue of integrating D/HH children in regular education settings has been and continues to be a highly controversial topic (Angelides and Aravi 2006/2007; Freire 2009; Reed et al. 2008). The main argument for educating D/HH students in general education classes has to do with opportunities to interact with hearing peers and access to the official curriculum. Opportunities for interaction with hearing students and teachers are seen as important for oral language development, learning, and social integration; and it is assumed that in the regular classroom teachers have higher expectations and students face more challenges (Angelides and Aravi 2006/2007; Furlonger et al. 2010).

On the other hand, those arguing in favor of educating D/HH students in schools for the deaf highlight the fact that this context offers them more educational resources; opportunities for social interaction, and consequently, a better socioemotional development; access to Sign Language (SL) and other aspects of Deaf Culture; among other benefits (Angelides and Aravi 2006/2007; Doherty 2012; Freire 2009). Some authors, such as Jarvis (2002), even propose that school integration for these students leads to “internal exclusions” or “excluding inclusions”. This explains why many deaf adults around the globe have made efforts advocating for these children to be educated in separate settings with other D/HH students (Adoyo 2007; Powers 2002).

What Does Inclusion Mean? What Does it Imply for the Education of D/HH Students?

As Eriks-Brophy and Whittingham (2013) emphasize, inclusion involves a different perspective than mainstreaming. While the last term refers to a matter of placing D/HH students or other students with special educational needs in regular education settings, inclusion implies changes in the educational system as a whole, and it is associated with broad and varied issues related to equity, social justice, and human rights (Eriks-Brophy and Whittingham 2013; UNESCO 2005). However, it is very common today to talk about inclusion putting the focus more on the place where children are being educated – regular versus special school –, than on the possibilities offered by these contexts. This practice is symptomatic of the twist in focus that conceptualization of inclusion has seen, starting out from democratic theories and deriving into a way of managing the difference in educational environments (Slee and Allan 2000), which has avoided a

deeper reflection on the assumptions held by those responsible for decisions concerning D/HH individuals. These assumptions could be in conflict with a general recognition of the Deaf Community as a cultural and linguistic minority (Lane 2005). The ‘simple inclusion’ of D/HH in regular schools needs to be enriched with a discussion regarding the place of the Deaf Culture as well as SL in school (Komesaroff and McLean 2006).

Therefore, in contrast to the concept of mainstream, inclusion has to do more with a system of values than with a matter of placement, which puts at the center the right of D/HH students to receive education that does not discriminate them in any possible way (Adoyo 2007; Powers 2002):

“Inclusive education is best conceived as a response to student diversity based on principles of equity and acceptance that aim to give all children equal rights to participation in mainstream curricula and communities, as valued, accepted, and fully participating members of those communities, and also rights to achieve as much as they can academically, physically, and in their social and emotional development” (Powers 2002, p. 237).

This view of inclusive education is consistent with a sociocultural perspective of disabilities, and special educational needs. From such a perspective, barriers and obstacles precluding the individual’s participation in any educational context are responsible for his or her special needs, or disability condition. Inclusive education involves the elimination of those barriers and obstacles, through appropriate accommodations and support, and the promotion of students’ participation in equity and discrimination-free conditions (Lissi and Salinas 2012). Thus, several principles and indicators of inclusive education contexts for D/HH have been identified. These include an understanding of the actual experience of all students, a comprehensive school approach to the needs of D/HH students, effective communication in the classroom, flexible access for deaf students to the general curriculum, well prepared teachers, and access to Deaf Culture, among others (Powers 2002; Slobodzian 2011).

For Terigi (2014), educational inclusion must focus on the provision of educational projects which support individuals through a complete school trajectory, and prepare them to live in today’s complex societies. In contrast, it proposes that academic exclusion encompasses not only the exclusion of the physical space of the school but also a “low intensity schooling” and a “low relevance learning”. Low intensity schooling implies situations that generate disengagement on the part of the students, meaning they do not become involved in formative activities; the other side of this process is that the schools put fewer demands on the academic performance of these students. Low relevance learning occurs in situations in which the students have access to curricular contents, but only through lower tier versions of these contents. In this manner, there is a threat to the possibility to further their education beyond the present institution (Terigi 2009). Therefore, it is crucial to analyze the real learning opportunities offered to the different participants, in this case the D/HH students, in regular education contexts.

D/HH Students’ Learning Opportunities and Experiences in Regular Education Settings

Before addressing the subject of the learning opportunities that the D/HH students may encounter in the context of regular classrooms, it is important to establish our

conception of learning, which is based on a socio-constructivist perspective. From this approach, learning is understood as a transformation of knowledge structures which requires an active participation of the student (Bourgeois 2009; Bourgeois and Nizet 1997). In order for these structures to be transformed it is necessary that the knowledge of the student, his or her manner of understanding and relating to the world, be actually challenged, put in conflict, during the teaching-learning process (Bourgeois 2011; Sebastián and Lissi 2016). For this to occur, the student must engage in the activities proposed in the classroom, since only with active participation, trying to understand or explain something, or solving a problem, his or her current structures of knowledge are put to the test and can be challenged. On the other hand, in order for learning to occur, that is, in order for these structures to be transformed, it is necessary that the student can interact effectively with others – his or her teachers, and fellow students – so as to have access to different forms of knowing (Bourgeois 2009, 2011). According to Vygotski, in this joint involvement, the student can carry out with another fellow student tasks which he or she cannot do alone, so as to achieve a transformation through an internalization process which allows the student to perform the task in a more autonomous manner in the future. Thus, it is not reasonable to think of learning that occurs without the possibility of involvement in the proposed activities and in a context where it is not possible to interact effectively with others. Also, for learning to occur is necessary a context where the student feels accepted and comfortable so that making mistakes is not a threat (Baquero 2009; Bourgeois 2009; Vygotski 1989). Therefore, the proposed classroom activities must stimulate active student participation in a context where communication should be fluid and where all students are considered as legitimate peers, in order to experiment a social cognitive conflict which leads to new possibilities. Participation and involvement are absolutely essential for learning (Sebastián and Lissi 2016).

There are few studies which focus on characterizing the participation and involvement of D/HH students in the regular classroom. Borders et al. (2010) found that in classes without the presence of a special education teacher or interpreter, children with mild-to-moderate deafness required higher levels of prompting to participate, and were less precise than their hearing peers at following general class verbal prompts. Cawthon (2001) observed that teachers direct their speech to deaf students less frequently than to hearing students in the class and find more difficult to get them involved in classroom communication.

Reports on the experiences of D/HH students or high school graduates also indicate low levels of classroom participation. A line of research has explored deaf individuals' reflections on their school experiences, both in regular and special education settings (Angelides and Aravi 2006/2007; Doherty 2012; Foster 1989; Iantaffi et al. 2003). Almost 20 years ago, Lambroupoulou (1997, in Angelides and Aravi 2006/2007) showed that D/HH students in mainstream settings received little support, did not have curricular adjustments, and showed very low participation in class. D/HH individuals tend to think regular schools are more challenging than schools for the deaf, because they present higher demands and have a richer curriculum, and they think that this contributes to higher academic achievements (Angelides and Aravi 2006/2007). However, students also report difficulties following and understanding classes, and indicate that they need to dedicate extra time at home, alone or with tutors, so as to compensate for it (Angelides and Aravi 2006/2007; Foster 1989). Many obstacles,

including regular teacher attitudes, instructional practices, and communication skills, make classroom participation difficult for D/HH students in mainstream contexts (Stinson and Liu 1999). The contexts which seem to provide better experiences are those where deaf students are not perceived as “visitors” in the classroom, but rather as an integral part of it (Antia 1999; Antia et al. 2002; Slobodzian 2011).

It is important to consider the communication and interaction difficulties with their hearing peers, as these would have negative effects in the academic learning process too. Participation in collaborative formative activities provides conditions for deeper learning, as is related to the development of metacognition as well as self-regulation skills (Goos et al. 2002; Grau and Whitebread 2012; Iiskala et al. 2004; Mercer and Littleton 2007; Vauras et al. 2003). A fluid communication between D/HH students and their hearing peers contributes to the learning process by promoting social inclusion, and making effective participation in all classroom activities possible (Adoyo 2007; Antia 1999; Antia and Stinson 1999; Iantaffi et al. 2003).

Teacher Practices and Beliefs as Facilitators of Inclusive Education for the D/HH in Regular Education Settings

In order for D/HH students to be able to engage and fully participate in classroom activities, actions need to be taken to provide accessible instruction, include appropriate support; and promote communication and positive interactions between deaf and hearing students (Jarvis 2002; Lynas 1999). Thus, an inclusive setting for D/HH students in regular education usually requires other professionals working together with the regular education teacher to support instruction. Depending on students’ ages and linguistic skills, special education teachers, teacher aids, and/or interpreters are needed, and they all have to fulfill specific roles. The SL interpreters enable access to teachers’ discourse and classmates’ interventions, they make students’ participation possible, and facilitate interactions between D/HH students and their hearing peers (Cawthon 2001). We are going to focus here on the roles of deaf education teachers and regular education teachers, because in Chile is not common yet to find SL interpreters working in schools.

Classroom teachers’ beliefs, knowledge, and emotions have effects on the way they organize their practice with regard to specific groups of students in inclusive settings (Vermeulen et al. 2012). Successful inclusion requires teachers that believe it is possible to teach D/HH students in the regular classroom and have high expectations of them (Reed et al. 2008; Stinson and Liu 1999), instead of believing that there is an inherent disability in the student’s body or mind (Lalvani 2015). Although positive attitudes are more likely to be present when they feel supported by the work of special education teachers (Eriks-Brophy and Whittingham 2013; Vermeulen et al. 2012), it is also important for them to develop a sense of ownership of the D/HH students in their classroom (Antia 1999). Classroom teachers should also acquire some knowledge of language development in D/HH children and their specific needs for classroom participation and learning, in order to make proper accommodations such as adjusting objectives, materials and strategies (Eriks-Brophy and Whittingham 2013; Marschark et al. 2011; Sari 2007). Adaptations implemented by regular teachers when D/HH are included in the classroom and they do not have support from other professionals, include writing the lessons on the board, speaking slower and articulating better, facing

the classroom; in addition to approaching the students during or after the lesson, so as to monitor their correct understanding of the topics presented in class, or provide specific instructions (Vermeulen et al. 2012).

On the other hand, when teachers of D/HH students are present in the class, they need to coordinate their work with that of the regular education teachers, a task for which they usually have not been prepared (Foster and Cue 2009; Furlonger et al. 2010). Their expectations about students, as well as their beliefs about inclusion and their role in this process, have effects on the way they work with the students and the other teachers (Antia et al. 2002). It has been widely acknowledged that for inclusion to be successful, special education teachers need to be integrated as full members of the school organization, in opposition to just being seen as visitors in the classrooms and the school (Furlonger et al. 2010).

The roles that are expected from teachers of D/HH students in support of inclusion include services directed to the students, and other directed to the regular teachers (Antia 1999; Powers 2001). Their responsibilities usually include some of the following: direct teaching to the students; interpreting; adapting teaching strategies and material; promoting D/HH students interactions with their hearing peers; sharing their knowledge on Deaf Culture and deaf students with classroom teachers (Adoyo 2007; Antia 1999). Teachers of D/HH students need to be able to give up ownership of the D/HH students in order to facilitate this ownership by classroom teachers (Antia 1999). This is an important step for the implementation of curricular adaptations by regular education teachers and for making collaboration possible.

A key issue for successful inclusion is that regular classroom teachers and special educators can work together to modify their classroom practices in order to promote social and academic inclusion for D/HH students. Frequent communication between both teachers, as well as clearly defined and shared responsibilities prevent negative prejudices and potential conflicts, and are important components of this collaborative work (Forlin et al. 1996; Jiménez-Sánchez and Antia 1999; Reed et al. 2008). Collaboration requires not only perceived equality of status, but also a process of questioning their assumptions and stereotypes about D/HH students (Antia and Stinson 1999). Differences in their method of handling curricular knowledge and their views of D/HH students partially explain the different perspectives of regular teachers and specialists, with respect to the educational process and its goals; for example, if they consider the educational process as merely a passing on of information, or rather as the promotion of conceptual change (Marschark et al. 2011).

Background of the Education of the Deaf and their Educational Integration in Chile

In Chile, the first school for the deaf was created as early as 1852. This institution was the first school for the deaf in South America, and it is considered a crucial milestone in the development of special education in Chile. Up to only a few years ago the great majority of deaf students were educated in special elementary schools for the deaf, and most of them did not continue into secondary education. Inclusion of D/HH students in regular educational schools –particularly at the high school level– is a relatively recent phenomenon in the country.

As part of the Chilean education reform during the 1990's, and in agreement with international conferences and conventions advocating for the rights of students with special needs to be educated in regular schools, Supreme Education Decree N° 490/90 established, for the first time, norms for the integration of students with disabilities in regular education institutions, which was considered a very important milestone on the road to inclusion (MINEDUC 2005). Starting with the implementation of *School Mainstream Projects* in regular schools, D/HH students, together with other students with disabilities, began gaining increased access to regular schools (Godoy et al. 2004). Later on, in 1994, Law N°19.284 on social integration of people with disabilities was enacted. This law mandated the Ministry of Education to rule and assure integration in regular schools for students with disabilities (Supreme Education Decree N° 1 1998). Another important decree concerning the education of students with special educational needs was approved in 2009 (Decree 170) to regulate issues related to diagnosis and the way resources provided by the State should be used to support mainstream processes in the schools (MINEDUC 2009). However, this greater access for students with disabilities to regular education takes place in a school context in which teachers have very little time available for planning and collaborating (OECD 2014).

We do not have recent and accurate information about the educational situation of our deaf population (Herrera 2010). Estimations based on the limited available data indicate that around 50 % of D/HH students in elementary schools are mainstreamed in regular schools and the other 50 % are in special schools for the deaf (MINEDUC 2005). The educational achievements of deaf persons in Chile present a worrying scenario. In accordance with Herrera (2010) “less than half of the population with hearing disabilities has completed high school, about 11% does not have approved studies, and a very significant number fails at the different educational levels” (p. 214). We must also consider, that current educational regulations do not include the option of special schools for the deaf at the secondary level. In Santiago de Chile, one deaf education institution started a high school program last year, but it is still trying to get formal recognition.

This study aims to contribute to the understanding of the classroom learning context experienced by high school D/HH Chilean students in regular education settings. These students usually have some support from specialized teachers, although this is not in place for most of the class time. Considering this situation, in which D/HH spend less than 50 % of school hours in classes “with support” and the rest of the time they are integrated in classrooms without specialized support, we aimed to address the following questions: (1) Which teaching practices are used with deaf students in the regular classroom?; (2) What similarities and differences can be observed when comparing the teaching-learning situation for deaf students with and without special education teacher present in the classroom; (3) What are the beliefs held by teachers with regard to deaf students and their integration in regular education classes?; (4) How do these beliefs relate to classroom practices?.

Method

Participants

Seven high school (HS) teachers (six female) and five deaf education (DE) teachers (four female) who work at a large regular high school with a mainstreaming program

targeted at D/HH students, participated in the study. One of the participant teachers was also the coordinator of the Mainstream Program for Deaf Students at the school. In the 8th–12th grade classes included in the study, there was a total of 18 D/HH students. In each monitored class there were 2 or 3 D/HH students and an average of 27 hearing students.

Instruments and Procedure

An interview protocol was designed to explore teachers' beliefs related to deaf students' literacy competences and academic achievement, the strategies they use when working in classrooms that include D/HH students, accommodations made for these students, and their views of the inclusion process. Based on this protocol, semi-structured interviews were conducted with the teachers.

Ten class observations were carried out in the following conditions: six of them with both types of teachers present; two of them with only the HS teacher present; and another two, in which the DE teacher was present for only part of the class. Two members of the research team were present in each observation and register the behavior of the teachers present and the D/HH students. Although most classes in the school take place without a DE teacher in the room, the fact that we were interested in classes including content that relied more on oral and written language; meant that we observed more classes with DE teachers present (because such classes are considered more difficult for D/HH students to follow without this support).

All participant teachers signed informed consent forms and, for the students, their parents signed their consent to authorize participation in the study. Informed assent was used with students, and information about the study was presented both orally and in LSCh.

Data Analysis

Each interview was transcribed and then analyzed by at least two members of the research team. Qualitative content analysis was used to identify the participants' beliefs and their classroom practices, and also to group them in larger categories. Class observations were analyzed to characterize the participants' (HS teacher, DE teacher, and D/HH students) roles, as well as their specific behaviors and interactions in each class, and the accommodations implemented for D/HH students. All discrepancies between analyzers were discussed and resolved by consensual agreement.

Results

Classes with and without Support: Two Radically Different Learning Contexts

The analysis of interview data and class observations shows us that teaching and learning processes concerning D/HH students, develop in a totally different manner,

depending on the presence or absence of the DE teacher in the room. These two conditions are mentioned by the DE teachers as classes “with support” or “without support” respectively. It is important to note that the first situation occurs in 30–40 % of the classes, those with a more difficult content for the students or where language plays a more important role. These two contexts are described below, so as to later delve into the relationship between what occurs in both types of classes, and the beliefs held by HS and DE teachers about deaf students, their characteristics and the manner in which their education should be approached in a regular school.¹ A diagram which integrates the main results of the study is shown in Fig. 1. For a more detailed report of the presence of the categories described below, both in the classroom observations and interviews with teachers, refer to the [Appendix](#).

Classes with Support

HS Teacher Delegates Responsibility Most of the time, the HS teacher talks to the entire group of students in the class. She uses only oral and written Spanish, sometimes writes instructions on the board, but other times just dictates them to the students. Occasionally, she walks to the location where D/HH students are seated to check if help is needed, and explain things if necessary. This process is mediated by the DE teacher. In this context, the HS teacher tends to step aside of her role of directly teaching D/HH students, somehow transferring this responsibility to the DE teacher. In this situation, direct interaction between HS teacher and D/HH students is very rare.

DE Teacher Interprets, Explains and Supervises The DE teacher interacts almost exclusively with the D/HH students. She mediates between the D/HH students and the HS teacher, addressing the latter when she has doubts about content or activities, so as to then explain them back to the students. She sits close to the two or three D/HH students present in the classroom, and adopts a double role: interpreter and teacher. As part of the first role, the DE teacher interprets in SL what the HS teacher is saying. Although she interprets a large amount of what the HS teacher is saying, she only occasionally interprets what other students are saying. On the other hand, in her *teacher* role, she explains content and activities to the students, monitors students’ progress and comprehension, answers their questions, and provides help and support when needed. When working with written material, the DE teacher provides support by asking questions or clarifying text meaning. In addition to these two main roles, the DE teacher encourages students’ participation and, occasionally, helps in note-taking tasks such as registering important information in the students’ notebooks or taking photographs of the blackboard.

D/HH Students Manage to Engage in Learning Activities Interaction among D/HH students and their hearing classmates is very rare. Most of the time, when the DE teacher is in the room, there is also scant interaction between the D/HH students and the

¹ Descriptions of what takes place in the classrooms refer to the roles played by the teachers, and not to individual teachers. Thus “the DE teacher” integrates what DE teachers as a group tend to do, and the same works for the “HS teacher”. These teachers are referred to as females, because that is the gender of most participant teachers.

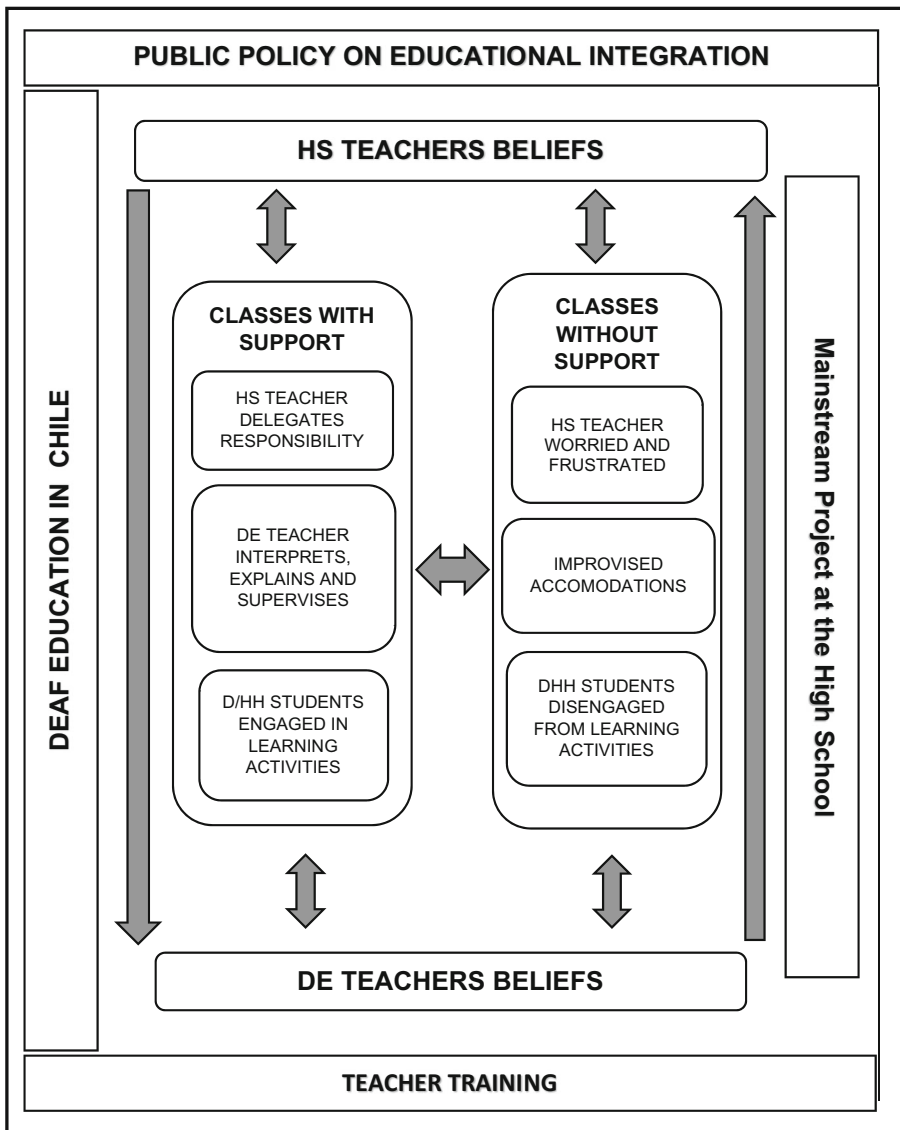


Fig. 1 The results are organized to show the main characteristics of classes with and without support to the D/HH students from the deaf education (DE) teacher, and the interaction between teachers beliefs and practices. The diagram shows also how the particular mainstream project of this high school, as well as aspects related to the Chilean educational system provide a broader context that helps to explain these findings

HS teacher. Although at times they do not pay enough attention to the DE teacher, the students manage to get involved in the task and keep concentrated on it. They interact frequently with the DE teacher, and ask questions to her while they perform the activities presented to them. However, in spite of the DE teacher presence, the students do not always manage to complete the assigned task and most of them show reluctance to share their opinions in front of the class.

In the interviews, the HS teachers' statements are consistent with what was found in classroom observations. They report that they feel relieved when the DE teachers are present, because they know the importance of their role in D/HH student's ability to follow the class, and therefore on their learning opportunities and academic performance:

“...I trust that everything the teacher (DE teacher) ... I speak and she explains it to them, because I see that as I am talking she is making it known to the kids too”.
(A.1.2, P34)

The perceptions of the DE teachers are consistent with this point of view, in terms of the contribution that they make so that the students can keep up in class. They also report knowing the importance attributed by the HS teachers to their presence in the classroom. They point out that their role is to interpret, but also to explain and monitor the work of the students. In a quote below, one of the DE teachers summarizes this multiplicity of roles:

“ I interpret ... I try to see, inquire whether the students understand the subject matter or not, if they remember what the teacher is talking about....if the kids remember things or not, if they lost a word, I try to explain them, so that we can keep track of the thread of the lesson” (A2.4, P48).

Classes with no Support

The HS Teacher Worries, Gets Frustrated, and Incorporates Improvised Accommodations In the observations we detected communication difficulties between the HS teacher and D/HH students. In many cases, it is evident that she tries to make an effort to help D/HH keep up with what is going on in the class. Strategies used include: writing on the blackboard what she is saying orally; approaching them so as to repeat the instructions, show them on her notebook what she had shown previously to the entire class, or make sure they understood; facilitating them a hearing student's notebook, so they may copy the activity she has dictated. Nevertheless, it is evident that this does not facilitate an efficient and effective communication between the HS teacher and the D/HH students. There are also some times, during which we observe that the HS teacher does not pay much attention to D/HH students, nor does she try to make any special accommodations for them.

D/HH Students Do not Get Involved in the Teaching-Learning Process In classes without any support from the DE teacher, D/HH students show signs of frustration or look disinterested because they cannot understand, but they rarely ask for help from the HS teacher. They also get distracted easily and they frequently talk among themselves in SL, about the lesson or other unrelated matters. Occasionally, they also interact with their hearing peers, for example to ask them for a notebook so as to copy what they wrote down. Many times they do not work on the assigned task, as they do not understand what is expected from them, or they cannot do it without assistance.

Sometimes they face situations where they cannot understand the content of the subject matter presented due to limitations of the resource used (e.g. videos without subtitles).

In the interviews, the HS teachers also confirm that when the DE teacher is not present, they become somewhat frustrated as they cannot communicate or have important difficulties communicating with the D/HH students. Therefore, they are not sure whether they have understood or if they are able to follow the content of the lesson. Confronted with this situation, they improvise measures such as writing all or part of the lesson on the board, or placing the D/HH student next to a hearing student, so that the first can copy from the notebook of the latter. The teachers are conscious of the inadequacy of these measures, this is evidenced by comments which indicate that the teacher *tries* to explain things to them and emphasize that the students may *at least* copy. The expectation that they manage to understand does not seem evident in many cases.

“I approach them, I ask them, I try to write for them (...), I ask them which part didn’t they understand, they tell me what they don’t understand, and I try to explain as we go along” (A.1.1, P22).

“I try to make them sit next to a hearing student, so that they may at least copy [their notes]” (A.1.2, P4).

As outlined in the following quote, the HS teachers themselves make explicit comparisons between what occurs when a DE teacher is present in the class and when there is no DE teacher present, highlighting the importance of the participation of the DE teacher and the frustration they feel when they cannot communicate with D/HH students.

“They do understand, I believe a lot more, according to what I see, I see them work, they are much more relaxed because when they are alone with me ‘ohh’ it’s as if they get frustrated and become desperate and they tell me they don’t understand. So then II get more worried, I approach them and try to explain to them, I write things for them in their notebooks; whereas when they are with her [the DE teacher] they are much more relaxed because they know that...the explanation is going to be much clearer, we won’t have a situation where I’ll be explaining something and I get the sensation that they don’t understand anything of what I’m talking about; and darn it I would love to learn their language so as to understand them...after I’ve explained to the entire group, to be able to approach them and explain the subject matter in a much more specific manner...but no, I cannot” (A.1.1, P88-90).

Beliefs of the Teachers Related to their Pedagogical Practices

Related to their experiences in both contexts, both groups of teachers hold beliefs regarding D/HH students, and about the work of the other group of teachers, which are

consistent which their teaching practices. We observe a relationship of reciprocal influence and mutual feedback among teachers' beliefs and practices: their beliefs support and at the same time justify the actions carried out with D/HH (see Fig. 1).

Beliefs of the HS Teachers

With regard to the beliefs held by the teachers regarding the performance of their D/HH students, to a large degree they explain these students' difficulties based on their individual characteristics, which distinguish them from the other students. These include their lower knowledge of vocabulary and grammar, their attitudes, the hearing level, and their linguistic differences:

“I get the sensation that they think in the same manner they talk, sort of like all chopped up, which makes the classroom texts much more difficult and complex for them to understand” (A.1.1, P166).

Some HS teachers also attribute the students' learning difficulties to a lack of reading habits and they believe these children have a more concrete way of thinking:

“There are contents which the kids will not...won't understand because they are of a more abstract nature, and deaf kids have a...mechanism which is much more concrete” (A.1.4, P56)

These also provide explanations that are centered on the lack of socialization with hearing people and limitations in their capacity for lipreading. Lastly, some of the explanations given by HS teachers relate to the families of the D/HH students and the lack of educational opportunities within these families. HS teachers also believe that there should be more use of visual aids and images in the classroom, SL teaching and training on curricular adaptations should be made available for them, and more reading practice opportunities should be provided for D/HH students. These beliefs are shared with DE teachers. Desirable methods mentioned only by the HS teachers relate to writing on the blackboard, avoid abstract contents and relate contents with the daily lives of the D/HH students.

“I write on the blackboard ... firstly because I'm not familiar with sign language and by not knowing this technique, I know very few words in sign language, I believe this is the best way to help them” (A1.4, P18).

Consistently with the practices described above in the settings with and without support of the DE teacher, the HS teachers tend to idealize the presence of the DE teacher as they are regarded as experts in the learning difficulties of the D/HH students:

“She in general accompanies them, which is an absolutely fundamental support, fundamental and necessary, most definitively” (A.1.7, P38)

“The kids... if the educator is not there, hmm they don't understand anything, absolutely nothing” (A.1.6, P34).

Although the HS teachers view curricular adaptations or accommodations as something useful, which improves the performance of D/HH students, they have reservations regarding their effects. On the one hand, they view the adaptations as an advantage that D/HH students have over the hearing students, meaning that they doubt how fair is to “help” deaf students. And for similar reasons, they worry about adaptations becoming a reason to justify the lack of academic demands placed on D/HH students and the fact they are not developing to their maximum potential.

Beliefs of the DE Teachers

The DE teachers, in a similar manner as the HS teachers, tend to view the learning difficulties of D/HH students as a phenomenon explained by individual variables that are relevant for success in school. Among them, they include the need of certain abilities such as reading strategies, students’ attitudes toward reading assignments, their level of knowledge of vocabulary and grammar, and their hearing level. With regard to explanations beyond the individual level, in the same manner as the HS teachers, they include family related factors. They also consider situations related to the previous educational experiences of the students. DE teachers coincide to a certain extent with the HS teachers, with regard to the practices which would help to better educate D/HH students. They also mention the use of curricular adaptations, teaching SL to regular teachers, promote reading among deaf students and the use of visual aids. But they also include some different recommendations such as more hours of special support provided in the resource room, more use of fingerspelling, using book summaries as reading material, and teaching curricular contents at a slower pace.

In a similar manner to the concerns of the HS teachers regarding adaptations or accommodations, DE teachers are of the opinion that there is a certain conflict between the needs of D/HH students regarding specialized support in the classroom and the need to develop a certain autonomy so as to interact in a hearing world:

“It is necessary to have a DE teacher that could cover all of the hours the kids [D/HH] are in the regular classroom, maybe, even though you are taking away the strategy of interacting with the hearing world, which is where they will be integrated later (...) and for that it is necessary that the kids be alone, that they experience the trauma of being alone in the classroom”. (A.2.4, P56).

Discussion

The results of this study contribute to the understanding of the classroom context of Chilean D/HH students who attend regular secondary establishments. By analyzing a specific situation -the case of a regular high school receiving public funding where a relatively large number of D/HH students are enrolled- we could identify the constraints that this type of setting may present on the provision of real inclusive conditions and fair learning opportunities for these group of students.

Both the observations in class as well as the information supplied by the teachers during the interviews show us that, for D/HH students, classes are radically different depending on the presence or absence of the DE teacher in the classroom. When there is closer pedagogical support, as well as interpretation in sign language, the D/HH students manage to get involved in learning activities. On the other hand, the lack of this type of support and the communication barriers this situation implies, generate a context in which D/HH students have significant difficulties to follow the class and have little participation in the activities proposed by the regular teacher, who in turn feels uncomfortable and frustrated. The fact that the D/HH show a low level of participation when they have no support from an educator of the deaf is a worrying fact, as it implies that in this context they cannot get involved in a manner which would provide opportunities to transform their knowledge structures or, in simpler words, to learn (Bourgeois 2009).

The above mentioned difficulties to get involved would lead the teachers to lower their expectations for deaf students and reduce the requirement levels for these students. This has been previously addressed in studies which deal with the experiences of deaf students in regular classrooms (Angelides and Aravi 2006/2007; Foster 1989). The frustration of the HS teachers and their perception of their lack of tools would reinforce the belief that it is the DE teacher, in his role as an expert, who is in charge of the D/HH student, and would explain in part the situation we describe in the [Results](#)’ section. As mentioned by Vermeulen et al. (2012) the emotions of the teachers, added to what they know and believe, have an effect on the manner in which they organize their practices in contexts where students with special needs are mainstreamed.

A situation like the one described here cannot be considered to be inclusive, in spite of teachers’ positive attitudes and the amount of effort HS teachers may invest on trying to support the learning process of the D/HH students (Powers 2002). In the words of Terigi (2009, 2014), these students would be in a condition of “low intensity schooling”, which is conducive to “low relevance learning” which sends us back to the idea put forth by various authors with regard to considering inclusion more than just a mere incorporation of D/HH students into regular schools (Komesaroff and McLean 2006), and to analyze the extent to which schools can assure them fair conditions, as well as equal opportunities for participation and learning (Powers 2002).

Prior studies indicate the importance of collaboration among regular education teachers and teachers for D/HH students, as a means to generate inclusive contexts in which to educate them (Antia et al. 2002; Reed et al. 2008; Stinson and Liu 1999). Unfortunately, in this study we found little or no collaborative work between both types of teachers. Both types of teachers tend to carry out their work in a parallel manner, and when they meet up in the regular classroom, the teacher for D/HH students takes on the role of a specialist, which allows the regular classroom teacher to delegate the task. We believe this situation is a reflection of a series of policies surrounding school integration and education, in more general terms, which Chile has decided to promote. On the one hand, in their university training, special education teachers and regular education teachers go through quite different programs, with special needs

teachers receiving a more medically inclined training (Manghi et al. 2012), which makes the use of a common language more difficult and divides accountability for the educational results of the students with and without special needs. Consistent with a medical model, school integration policies are centered on the diagnosis and classification of the educational needs of the students, for the allocation of public funds in the form of subsidies (MINEDUC 2009). On the other hand, the little amount of time –from the total working hours- that teachers have available to plan their lessons (OECD 2014), limits even more the possibility of carrying out joint planning sessions among these different professionals.

Our study shows that the beliefs held in by the teachers working with D/HH students, in general, involve explanations of students' learning difficulties more related to problems with the individuals themselves and their previous school history, than to characteristics of their current school context. This is consistent with a focus on the student's deficit and a view of disability as something immutable, which resides in the bodies and minds of the students (Lalvani 2015).

With regard to the evaluations surrounding the curricular adaptations for the D/HH students, the teachers hold certain misconceptions. They see these adaptations as a means to make school tasks easier for the students, which arises two concerns. On the one hand this would give D/HH students an advantage with regard to the hearing students, and on the other, could lead to a lesser degree of learning and autonomy of these students. Consistently with this line of thought, "promoting autonomy" is an argument that justifies the lack of special support in some of the classes, something reported in a previous study (Powers 2001). These beliefs do not take into account that adaptations are a tool to obtain a fairer environment or to eliminate the barriers to involvement and participation in school activities (Lissi and Salinas 2012). In addition, they do not consider the manner in which these adaptations can provide contexts which allow the gradual development of abilities by means of internalization (Baquero 2009; Sebastián and Lissi 2016; Vygotski 1989) and which makes possible a more autonomous development of deaf students in the future.

The majority of the solutions offered by the teachers to improve the situation of D/HH students in the regular classroom are focused on improving the channels of communication between the regular teacher and these students. Antia et al. (2002) points out that a teacher, who has a vision of learning as merely a transmission of information, may think that it is sufficient with looking for an expeditious manner to transmit information between the teacher and the student. A more constructivist and sociocultural vision of learning would demand much more in order to speak of inclusion. The understanding of learning as a transformation of knowledge structures requires the involvement of the D/HH student in joint activities with his peers and teachers which allow for the appearance of conflicts and challenges as well as the internalization of new forms of knowledge and thinking (Baquero 2009; Sebastián and Lissi 2016; Vygotski 1989). This perspective is consistent with studies which indicate the general benefit for learning, of collaborative interaction which promotes metacognition and self-regulation development (Goos et al. 2002; Grau and Whitebread 2012; Iiskala et al. 2004; Mercer and Littleton 2007; Vauras et al. 2003).

Nevertheless, it is important to point out that just as in previous studies, the teachers participating in this study in general showed a positive attitude towards the idea of educating D/HH students in regular schools, in so far as they receive the necessary support, and they were willing to receive training if time were allotted for this activity.

It would seem that under current conditions, D/HH students in Chile could be better off in special institutions for them, which would allow total access to what occurs in the classroom, as well as improved learning opportunities for them. It should be noted also, that the situation of these students may differ substantially from that observed in other countries, as many of these students enter the educational system without having a first language fully developed and many graduate from primary schools with limited communicational skills, both in LSCh and written Spanish (Lissi et al. 2001). However, rather than determining which is the better placement for D/HH students in Chile, it is important to consider that the substantial variety of students among this population requires a more flexible framework of educational services for them, offering more opportunities so that informed decisions can be taken regarding the most inclusive educational context for each student at each different stage. On the other hand, we feel that laying down the inclusion policies in the principle of normalization (Byrnes et al. 2002) does not allow for the consideration of cultural and linguistic differences of the Deaf as a minority group (Lane 2005). Deaf students need to be recognized as a specific group with respect to the rules regarding educational inclusion.

Training of special education teachers and general education teachers requires a greater integration if we want to make progress towards an inclusive educational setup for these students. Special educators need a more robust type of educational training and preparation with regard to their role in inclusive contexts (Furlonger et al. 2010) and regular teachers require training with greater emphasis on inclusion, adaptations and special educational needs in their study plans, so as to see diversity in the classroom not as an exceptional phenomena but rather as a regular thing. The same kind of formative activities should also be targeted to in-service teachers (Lissi and Salinas 2012).

The main limitation of this study is that it does not include the opinion of the D/HH students themselves, so as to complement what we observed in class and the report of their teachers. In addition, it would have been interesting to observe what occurs in other regular classrooms where oral and written Spanish does not have the same importance (e.g. mathematics) and in classrooms where special education teachers work exclusively with deaf students. Future studies should incorporate these aspects to contribute to a more complex understanding of this phenomena.

Compliance with Ethical Standards

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Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Conflict of Interest The authors declare that they have no conflict of interest.

Appendix

Presence of Phenomena in Data Sources

Data Source	Teachers involved	HS teacher delegates ¹	DE teacher takes charge ²	D/HH students engage ³	HS teacher is overwhelmed ⁴	D/HH students do not engage ⁵
Interview 1	HS	X	X	X		
Interview 2	HS	X	X		X	
Interview 3	HS	X	X		X	
Interview 4	HS	X	X		X	
Interview 5	HS				X	
Interview 6	HS	X	X		X	
Interview 7	HS		X	X		
Interview 8	DE		X			
Interview 9	DE					X
Interview 10	DE		X			X
Interview 11	DE	X	X			X
Interview 12	DE		X			
Observation 1	HS				X	X
Observation 2	HS + DE	X	X	X		
Observation 3	HS + DE	X	X			X
Observation 4	HS + DE	X	X	X		
Observation 5	HS				X	X
Observation 6	HS + DE		X	X		
Observation 7	HS + DE	X	X	X		
Observation 8.1	HS					X
Observation 8.2	HS + DE	X	X	X		
Observation 9.1	HS					X
Observation 9.2	HS + DE	X	X	X		
Observation 10	HS + DE		X	X		

Observations 8 and 9 are divided in two parts, to highlight the change that implies the DE teacher entering the classroom to support the HS teacher. Categories related to D/HH students' engagement with learning were constructed mainly through class observations. There are few times in which these categories appear in the interviews, since their focus was not on students' behavior in specific contexts but on teachers' beliefs regarding D/HH students' education

¹ HS teacher delegates responsibility

² DE teacher interprets, explains and supervises

³ D/HH students manage to engage in learning activities

⁴ HS teachers worries, gets frustrated and incorporates improvised accommodations

⁵ D/HH students do not get involved in the teaching-learning process

References

- Adoyo, P. (2007). Educating deaf children in an inclusive setting in Kenya: Challenges and considerations. *Electronic Journal for Inclusive Education*, 2(2), 1–13. <http://corescholar.libraries.wright.edu/ejie/> Accessed 12 November 2015.
- Angelides, P. & Aravi, C. (2006/2007). A comparative perspective on the experiences of deaf and hard of hearing individuals as students at mainstream and special schools. *American Annals of the Deaf*, doi:10.1353/aad.2007.0001
- Antia, S. D. (1999). The roles of special educators and classroom teachers in an inclusive school. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/4.3.203.
- Antia, S. D., & Stinson, M. S. (1999). Some conclusions on the education of deaf and hard-of-hearing students in inclusive settings. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/4.3.246.
- Antia, S. D., Stinson, M. S., & Gaustad, M. G. (2002). Developing membership in the education of deaf and hard-of-hearing students in inclusive settings. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/7.3.214.
- Baquero, R. (2009). *Vigotsky y el aprendizaje escolar [Vigotsky and school learning]*. Buenos Aires: Aique.
- Borders, C. M., Barnett, D., & Bauer, A. M. (2010). How are they really doing? Observation of inclusionary classroom participation for children with mild-to-moderate deafness. *Journal of Deaf Studies and Deaf Education*, doi:10.1093/deafed/enq028
- Bourgeois, E. (2009). Apprentissage et transformation du sujet en formation [learning and transformation of the individual through education]. In J.-M. Barbier, E. Bourgeois, G. Chapelle, & J.-C. Ruano-Borbalan (Eds.), *Encyclopédie de la formation* (pp. 31–81). Paris: PUF.
- Bourgeois, E. (2011). Piaget's constructivism and adult learning. In P. Jarvis (Ed.), *The Routledge international handbook of learning* (pp. 340–347). New York: Routledge.
- Bourgeois, E., & Nizet, J. (1997). *Apprentissage et formation d'adultes [adults' learning and education]*. Paris: Presses Universitaires de France.
- Byrnes, L., Sigafoos, J., Rickwards, F., & Brown, P. M. (2002). *Inclusion of students who are deaf or hard of hearing in government schools in new South Wales*. Australia: Development and implementation of a policy. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/7.3.244.
- Cawthon, S. W. (2001). Teaching strategies in inclusive classrooms with deaf students. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/6.3.212.
- Doherty, M. T. (2012). Inclusion and deaf education: the perceptions and experiences of young deaf people in Northern Ireland and Sweden. *International Journal of Inclusive Education*. doi:10.1080/13603116.2010.523905.
- Eriks-Brophy, A., & Whittingham, J. (2013). Teachers' perceptions of the inclusion of children with hearing loss in general education settings. *American Annals of the Deaf*. doi:10.1353/aad.2013.0009.
- Forlin, C., Douglas, G., & Hattie, J. (1996). Inclusive practices: how accepting are the teachers? *International Journal of Disability, Development and Education*. doi:10.1080/0156655960430203.
- Foster, S. (1989). Reflections of a group of deaf adults on their experiences in mainstream and residential school programs in the United States. *Disability, Handicap, and Society*. doi:10.1080/0267464896780031.
- Foster, S., & Cue, K. (2009). Roles and responsibilities of itinerant specialist teachers of deaf and hard of hearing students. *American Annals of the Deaf*. doi:10.1353/aad.0.0068.
- Freire, S. (2009). Creating inclusive learning environments: difficulties and opportunities within the new political ethos. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/enm055.
- Furlonger, B. E., Sharma, U., Moore, D. W., & King, B. S. (2010). A new approach to training teachers to meet the diverse learning needs of deaf and hard-of-hearing children within inclusive Australian schools. *International Journal of Inclusive Education*. doi:10.1080/13603110802504549.
- Godoy, M. P., Meza, M. L., & Salazar, A. (2004). *Antecedentes históricos, presente y futuro de la educación especial [historical background, present and future of special education]*. Santiago, Chile: Ministerio de Educación.

- Goos, M., Galbraith, P., & Renshaw, P. (2002). Socially mediated metacognition: creating collaborative zones of proximal development in small group problem solving. *Educational Studies in Mathematics*. doi:10.1023/A:1016209010120.
- Grau, V., & Whitebread, D. (2012). Self and social regulation of learning during collaborative activities in the classroom: the interplay of individual and group cognition. *Learning and Instruction*. doi:10.1016/j.learninstruc.2012.03.003.
- Herrera, V. (2010). Estudio de la población Sorda en Chile: Evolución histórica y perspectivas lingüísticas, educativas y sociales [Study of the Deaf population in Chile: Historical evolution, linguistic, educational, and social perspectives]. *Revista Latinoamericana de Educación Inclusiva*, 4(1), 211–226. <http://www.rinace.net/rlei/> Accessed 10 September 2015.
- Hintermair, M. (2011). Health-related quality of life and classroom participation of deaf and hard-of-hearing students in general schools. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/enq045.
- Iantaffi, A., Jarvis, J., & Sinka, I. (2003). Deaf pupils' views of inclusion in mainstream schools. *Deafness and Education International*. doi:10.1002/dei.153.
- Iiskala, T., Vauras, M., & Lehtinen, E. (2004). Socially-shared metacognition in peer-learning? *Hellenic Journal of Psychology*, 1, 147–178. <http://www.pseve.org/journal.asp> Accessed 18 November 2015.
- Jarvis, J. (2002). Exclusion by inclusion? Issues for deaf pupils and their mainstream teachers. *Education* 3–13, doi:10.1080/03004270285200231
- Jiménez-Sánchez, C., & Antia, S. D. (1999). Team-teaching in an integrated classroom: perceptions of deaf and hearing teachers. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/4.3.215.
- Komesaroff, L. R., & McLean, M. A. (2006). Being there is not enough: inclusion is both deaf and hearing. *Deafness and Education International*. doi:10.1002/dei.192.
- Lalvani, P. (2015). Disability, stigma and otherness: perspectives of parents and teachers. *International Journal of Disability, Development and Education*. doi:10.1080/1034912X.2015.1029877.
- Lane, H. (2005). Ethnicity, ethics, and the deaf-world. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/eni030.
- Lissi, M. R., & Salinas, M. (2012). La educación de niños y jóvenes con discapacidad. Más allá de la inclusión [educating children and youth with disability. Beyond inclusion]. In I. Mena, M. R. Lissi, L. Alcalay, & N. Milicic (Eds.), *Educación y diversidad: Aportes desde la psicología educacional* (pp. 199–237). Santiago, Chile: Ediciones UC.
- Lissi, M. R., Grau, V., Raglianti, M., Salinas, M., & Torres, M. (2001). Adquisición de la lectoescritura en niños sordos: Una visión desde los profesores en Chile [literacy acquisition in deaf children: Chilean teachers' perspective]. *Psyche*, 10(1), 35–48. <http://www.psykhe.cl/index.php/psykhe>. Accessed 29 November 2015.
- Lynas, W. (1999). Supporting the deaf child in the mainstream school: is there a best way? *Support for Learning*. doi:10.1111/1467-9604.00115.
- Manghi, D., Julio, C., Conejeros, M. L., Donoso, E., Murillo M. L., & Díaz, C. (2012). El profesor de educación diferencial en Chile para el Siglo XXI: Tránsito de paradigma en la formación profesional [the special education teacher in Chile for the XXI century: changing paradigm in professional training]. *Revista Perspectiva Educativa*, 51(2), 46–71. <http://www.perspectivaeducacional.cl/index.php/peducacional>. Accessed 5 December 2015.
- Marschark, M., Spencer, P., Adams, J., & Sapere, P. (2011). Evidence-based practice in educating deaf and hard-of-hearing children: teaching to their cognitive strengths and needs. *European Journal of Special Needs Education*. doi:10.1080/08856257.2011.543540.
- Mercer, N., & Littleton, K. (2007). *Dialogue and the development of children's thinking: a sociocultural approach*. London: Routledge.
- MINEDUC (2005). *Política Nacional de Educación Especial. Nuestro compromiso con la diversidad*. [National Policy on Special Education. Our commitment to diversity]. Santiago, Chile: MINEDUC.
- MINEDUC (2009). *Decreto 170 [decree N° 170]*. Santiago, Chile: Gobierno de Chile.
- OECD (2014). TALIS 2013 results: an international perspective on teaching and learning. OECD Publishing, doi:10.1787/9789264196261-en
- Powers, S. (2001). Investigating good practice in supporting deaf pupils in mainstream schools. *Educational Review*. doi:10.1080/00131910120055606.
- Powers, S. (2002). From concepts to practice in deaf education: a United Kingdom perspective on inclusion. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/7.3.230.
- Reed, S., Antia, S. D., & Kreimeyer, K. H. (2008). Academic status of deaf and hard-of-hearing students in public schools: student, home, and service facilitators and detractors. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/enn006.

- Sari, H. (2007). The influence of an in-service teacher training (INSET) program on attitudes towards inclusion by regular classroom teachers who teach deaf students in primary schools in Turkey. *Deafness and Education International*. doi:10.1002/dei.220.
- Sebastián, C., & Lissi, M. R. (2016). El aprendizaje como proceso psicológico superior. Hacia una comprensión histórico-cultural del desarrollo del proceso de aprender [learning as a higher psychological process. Towards a cultural-historical comprehension of the development of learning]. In P. Freire, R. Moretti, & F. Burrows (Eds.), *Aprendizaje y educación: Contribuciones desde una perspectiva psicosocial*. Santiago, Chile: Ediciones Universidad Alberto Hurtado (in press).
- Slee, R., & Allan, J. (2000). Excluding the included: a reconsideration of inclusive education. *International Studies in Sociology of Education*. doi:10.1080/09620210100200073.
- Slobodzian, J. T. (2011). A cross-cultural study: deaf students in a public mainstream school setting. *International Journal of Inclusive Education*. doi:10.1080/13603110903289982.
- Stinson, M. S., & Liu, Y. (1999). Participation of deaf and hard-of-hearing students in classes with hearing students. *Journal of Deaf Studies and Deaf Education*. doi:10.1093/deafed/4.3.191.
- Terigi, F. (2009). La inclusión educativa: viejas deudas y nuevos desafíos [Inclusive education: Old debts and new challenges]. In F. Terigi (Coord.), *Segmentación urbana y educación en América Latina. El reto de la inclusión escolar* (pp. 21–28). Madrid: Fundación Iberoamericana para la Educación, la Ciencia y la Cultura.
- Terigi, F. (2014). *La inclusión Como problema de las políticas educativas [inclusion as an educational policy problem]*. En M. Del Carmen Feijóo, & M. Poggi (Coord.). *Educación y políticas sociales. Sinergias Para la inclusión* (pp. 217–234). Buenos Aires: UNESCO.
- UNESCO (2005). Guidelines for inclusion: ensuring access to education for all. France: United Nations. <http://www.unesdoc.unesco.org/images/0014/001402/140224e.pdf>. Accessed 14 November 2015
- Vauras, M., Iiskala, T., Kajamies, A., Kinnunen, R., & Lehtinen, E. (2003). *Shared-regulation and motivation of collaborating peers: a case analysis*. *Psychologia: An International Journal of Psychology in the Orient*. doi:10.2117/psysoc.2003.19.
- Vermeulen, J. A., Denessen, E., & Knoors, H. (2012). Mainstream teachers about including deaf or hard of hearing students. *Teaching and Teacher Education*. doi:10.1016/j.tate.2011.09.007.
- Vygotski, L. (1989). *El desarrollo de los procesos psicológicos superiores [the development of higher psychological processes]*. Barcelona: Editorial Crítica.