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Carrera de Pedagogía de los Idiomas Nacionales y Extranjeros

Teaching EFL and ESL to Deaf and Hard of Hearing Students

Trabajo de titulación previo a la obtención del título de Licenciado en Ciencias de la Educación en Pedagogía de los Idiomas Nacionales y Extranjeros

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Resumen

El propósito de esta síntesis de investigación fue identificar y reportar los métodos y estrategias usadas en aulas de EFL y ESL para enseñar a estudiantes sordos y con problemas de audición (D/HH en Inglés). Para esta síntesis de investigación bibliográfica se usaron veintinueve artículos recuperados de repositorios digitales. En cuanto a los criterios considerados para integrar los artículos en este estudio, los métodos de los artículos fueron de índole cuantitativa, y cualitativa mixta. Además, se analizaron estudios realizados en diferentes niveles educativos. Cabe mencionar que los artículos tomados en cuenta para esta síntesis fueron publicados dentro de los últimos veintisiete años, considerando el enfoque de esta investigación, es un plazo relativamente adecuado. De acuerdo a los objetivos de esta investigación, se analizaron diferentes métodos y estrategias de EFL y ESL, así como sus correspondientes modificaciones realizadas por los docentes, y finalmente las percepciones de los educadores y estudiantes hacia los métodos modificados. Los resultados de la síntesis de investigación mostraron que el método más eficaz en aulas de EFL/ESL para ser modificado y utilizado con estudiantes D/HH fue principalmente "Grammar Translation Method". Además, los resultados mostraron que los métodos menos usados fueron "Whole Language Teaching", "Multisensory Approach", "Natural Approach", "TPR", y "Visual-Spatial Approach". Asimismo, los métodos EFL/ESL que fueron modificados y aplicados presentaron más percepciones positivas que negativas tanto de maestros como de estudiantes D/HH. Finalmente, hubieron recomendaciones importantes basadas en la considerable cantidad de brechas de investigación identificadas a través del análisis de datos, que servirían para estudios posteriores.

Palabras clave: Métodos EFL/ESL. Modificaciones. Sordos y con problemas de audición. Percepciones: Educadores y estudiantes.

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Abstract

The purpose of this research synthesis was to identify and report the effective methods and strategies used in EFL and ESL classrooms to teach deaf and hard of hearing (D/HH) students. For this exploratory bibliographical research synthesis, twenty-nine articles retrieved from online databases were used. Regarding the criteria considered to integrate articles in this study, the articles could be either quantitative, qualitative or mixed methods in nature. Furthermore, studies conducted in different levels of education were analyzed. It is important to mention that the articles taken into account were published within the last twenty-seven years, which considering the focus of this research, is a relatively appropriate timeframe. According to the objectives of this research, the different EFL and ESL methods and strategies were analyzed, as well as their corresponding modifications by the teachers, and lastly the perceptions of the educators and students towards the modified EFL and ESL methods. The research synthesis results showed that the most effective method in the EFL/ESL classroom to be modified and used with D/HH students was primarily the Grammar Translation Method. Furthermore, the results showed that the least used methods were EFL/ESL methods Whole Language Teaching, Multisensory Approach, Natural Approach, TPR, and Visual-Spatial Approach. In addition, the EFL/ESL methods that were modified and applied presented more positive than negative perceptions from both teachers and D/HH students. Finally, there were important recommendations based on the considerable amount of research gaps identified through the analysis of the data, which should serve for further studies.

Keywords: EFL/ESL methods. Modifications: Deaf and hard of hearing. Perceptions. Teachers. Students.

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José

First, I would like to show appreciation to my family, they have helped me in all the process of studying college as well as encouraging me to achieve my goals and become the person I am nowadays. Also I would like to thank all my teachers, who provided all their effort and dedication to the instruction of their students. Then, I want to thank our tutor, Mg. Gabriela Tobar, whose help and guidance made this research possible. Finally, I thank all my friends, from whom I have learned a lot during the path we followed together at the university.

Christian

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Dedication

This research synthesis is dedicated firstly and foremostly to my God, my parents, my siblings, and my closest friends not only from Quito but also from Cuenca. Without their unconditional support and constant care I would not have been able to achieve this goal.

José

I want to dedicate this research synthesis to my beloved mother, without her example of strength and bravery I would not have reached my objectives. To my beloved brother, whose motivation greatly inferred in my personality and toughness; and finally, to my close friends, whom I will always love for the memories we had and shared through this time.

Christian

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Introduction

Education for the deaf and hard of hearing (D/HH) has been addressed in many instances in different countries around the world, but perhaps the most important statement regarding this type of inclusive education was the one presented in the Salamanca Statement by the UNESCO (1994), which in short addressed the importance of sign language in education with D/HH students. This need to consider inclusion for D/HH students' education has found its way into English as foreign language and English as a second language (EFL/ESL) for D/HH. One of the main reasons for this focus is the lack of accessible materials, teacher preparation, and methods to teach EFL/ESL to D/HH students. Therefore, in order to provide a proper EFL/ESL assessment and instruction methods for D/HH students, the present research synthesis attempts to find the most effective and commonly used methods by EFL/ESL teachers, presented in different articles by answering the following questions:

1. What teaching strategies have been reported as the most effective to teach a second or foreign language to deaf and hard of hearing students?

2. What are the teachers' and D/HH students' perceptions towards the teaching strategies used in a class with deaf or hard of hearing students?

The present research synthesis contains five chapters with its first chapter addressing the background, statement of the problem, rationale, research questions, and objectives. The second chapter presents the theoretical framework which states the essential meanings and terms by different authors regarding the main topic of the study. Correspondingly, chapter three presents the literature review which contains the descriptions with the most important facts from the studies selected in order to answer the research questions. In the fourth chapter, the methodology

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used for this study is presented. Furthermore, chapter five presents the analysis of the data divided into tables and the descriptions of each one. Finally, chapter six presents the conclusions and recommendations from this study followed by the references and appendix.

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CHAPTER I

Background Knowledge

According to the Canadian non-governmental organization, Inclusive Education Canada (IEC), inclusion is defined as "ensuring access to quality education for all students" which means that many aspects must be addressed. Furthermore, IEC assures that inclusion should be considered as a place where students with physical and cognitive disabilities learn, not separate, but rather side by side with their peers in order to break down obstacles that impede inclusion. Deaf and hard of hearing learners are part of this group of students with special needs who require support, moreover to be included. According to Arguello (2013), Deafness causes not only an obstruction in the development of sub-skills of communication such as speech and language but also affects their ability to develop in social, educational and professional contexts. In regards to inclusive education for deaf and hard of hearing students, the following quote from the Salamanca Statement (UNESCO, 1994) must be taken into consideration, "The importance of sign language as the medium of communication among the deaf, for example, should be recognized and provision made to ensure that all deaf persons have access to education in their national sign language" (p. 18).

Furthermore, education focused on deaf and hard of hearing students differs in time from country to country; an example of this are the findings of Rutkowski and Mostowski (2020) whose research states that education for the deaf has been questioned in Poland around 200 years ago. Unfortunately, it was never officially addressed due to preferences in Poland's national educational system regarding pedagogical approaches. This represents difficulties for teachers nowadays as well as for deaf and hard of hearing students to develop a well-constructed class

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since many pedagogical procedures prefer oral methods (Marschark as cited in Rutkowski & Mostowski, 2020). Due to the complications related to oral traditional methodologies for teaching students who do not have any type of disabilities, teaching English to deaf and hard of hearing students through those regular approaches (i.e. Grammar Translation, Silent Method, etc.) has become and still is a challenging task for teachers as stated by Huang (2011).

In addition, Huang (2011) concludes in his research that the use of multiple methods by teachers in their classrooms are highly needed to accommodate English as a Foreign Language (EFL) education for deaf students. Furthermore, the several existing approaches must be modified and adapted in order to provide a better educational experience for deaf and hard of hearing students, as Huang (2011) thoroughly argues that various adapted educational materials and approaches are used by educators to enhance their students' learning process.

Despite the fact that education has improved and gone through many shifts and changes, there are some subcategories which have not been thoroughly researched. Therefore, a section of inclusive education which has not been thoroughly taken into account, as stated by Lang (2012), is that of the instructors' expectations regarding deaf and hard of hearing students and the methods used inside the classroom. As a matter of fact, there is not a broad range of approaches for teachers to choose from and use into inclusive classrooms, nor are there enough teachers that have been properly qualified to teach students in inclusive classrooms. As Bedoin (2011) states "there is a shortage of English teachers of the deaf and that is why some teachers are recruited, even in special schools, without any special training" (p. 171) which addresses the importance to have extensive knowledge about approaches and additional teacher training to teach deaf and hard of hearing students of a foreign or second language.

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According to Long, Vignare, Rappold, and Mallory (2007) it is important to comprehend the perceptions of deaf and hard of hearing students in the process of learning. Motivation was also found to be an important factor for deaf and hard of hearing students. Moreover, Gerner de García (1995) briefly mentions that culture also plays an important role in the development of communicative skills for such students. A good example of the latter is migration and travelling which increases the struggle for these particular students. In addition, Dostal and Wolbers (2014) argue that exposure to sign language is another important feature to take into account for the instruction of deaf and hard of hearing inside classrooms. In short, an approach for deaf and hard of hearing students in EFL and ESL classrooms must take into account a broad range of features in order to be used as an effective instruction method.

Problem Statement

Education has developed and progressed in many aspects around the world. Everything ranging from new pedagogical theories for teaching EFL and ESL to technology as a powerful educational instrument in foreign language teaching and acquisition, as evidenced by Zermovoj (2015). Nevertheless, not all areas of EFL and ESL education have been addressed. According to Young, Schaefer, and Lesley (2019), one factor that has been slightly overseen is foreign language education for students with disabilities. It is not difficult to realize that these particular students require from their teachers different, more specialized types of educational strategies to teach them appropriately. A student with Down syndrome will not be able to learn at the same pace as one who was not born with this syndrome, nor can a student who is easily able to move around to be applied a Total Physical Response (TPR) method as to one who is in a wheelchair or with partial paralysis. All these students need different approaches in methods and strategies, but one particular case worth focusing on is the case of deaf and hard of hearing students. The

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deaf community has had many advancements in education but their particular situation is still a matter to take into consideration when it comes to teaching English as a foreign or second language, which Palma and Steyer (2013) point out as an issue to solve in the case of teaching to deaf and hard of hearing students.

One issue observed throughout the practicum of the career of *"Pedagogía de los Idiomas Nacionales y Extranjeros"* was that many of the deaf students were part of an inclusive program from the government which had these students in the same classroom as their hearing peers. Inclusion programs are an excellent manner or an excellent strategy to help these students and their EFL education when conducted appropriately. As Almotiri (2017) briefly states, students can overcome problems and difficulties faced when included in classrooms with hearing peers with the correct amount of support.

This research pretends to identify effective reported strategies to teach EFL or ESL to deaf and hard hearing students. The situation observed during practicum in public high schools in Ecuador is an example of the tremendous need to further develop the inclusion program. Many authors have highlighted that deaf and hard of hearing students should be taught differently and teachers should know about them. For example, Domagała-Zyśk and Podlewska (2016) mention some particular strategies in order to teach vocabulary to deaf students which is something that the inclusion program fails to achieve. Furthermore, educational institutions should incorporate more developed teacher training programs for deaf students in order to offer a better educational experience (Bedoin, 2011). Nevertheless, not only is the institution solely responsible as to how an inclusion program might be successful but also teachers play an important role in this process, as Csizér and Kontra (2020) mention the way in which teachers help motivate students and how it directly influences deaf students' academic performance in EFL classes.

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Rationale

According to Huang (2011), modifying pedagogical approaches and even curricular decisions are made solely by the teachers from each classroom since there doesn't exist a specific method or approach to teach students with learning disabilities and in this case, deaf and hard of hearing students (p. 117). These studies emphasize the effort and decisions which educators must make in order to provide students who are deaf and hard of hearing an EFL or ESL education as equal as possible to their hearing peers.

Perhaps the most common adaptations that teachers make to their pedagogical approaches are the incorporation of many visual aids such as images and diverse types of multimedia, and even sign language, as is stated by Palma and Steyer (2013). Further studies show that depending on the type of macro-skill to be taught by teachers to these students, there can be specific modifications which can be used. For example, Brokop and Persall (2009) conclude in their research that for writing skills there should be more emphasis in strategies applied in the pre-writing phase which help deaf and hard of hearing students express their ideas in English in a more effective way.

Nevertheless, teachers do not worry solely about how and what approaches and methods to modify; they also have many perspectives concerning other factors such as the applied strategies in teaching EFL and ESL to deaf and hard of hearing students. According to Geeslin (2007), teachers consider that in order to properly apply some strategies they should be paired with knowledge of sign language which can greatly help these students have a more enriched foreign language acquisition. Other studies such as the one from Kormos and Kontra (2008) suggest that teachers need a proper training program in which they can learn which strategies can be better suited for these students, and teachers in turn can receive a qualified certification.

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This research is important since, as future EFL or ESL teachers, it is necessary to be well informed of the current situation which deaf and hard of hearing students face in EFL/ESL classrooms and what teachers know regarding the most common methods used when teaching EFL or ESL to deaf and hard of hearing students. In addition, it is necessary to comprehend the common perceptions that many EFL teachers and even Deaf and Hard of Hearing students have regarding this type of education. Furthermore, this research will report about the various types of methods which EFL teachers can use with deaf and hard of hearing students due to the fact that many educators greatly depend on a limited use of strategies such as multimedia to teach EFL classes with these students. The reason observed is that EFL teachers have a deficient knowledge regarding the types of methods they may apply within their classrooms.

Research Questions:

The research questions that emerge from the literature that we have reviewed about the chosen field for this synthesis, are the following:

What teaching strategies have been reported as the most effective to teach a second or foreign language to deaf and hard of hearing students?

What are the teachers' and D/HH students' perceptions towards the teaching strategies used in a class with deaf or hard of hearing students?

Objectives:

- To identify appropriate strategies to teach EFL or ESL to deaf and hard hearing students

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Specific objectives:

To determine effective strategies that teachers could apply to teach EFL or ESL to deaf and hard of hearing students.

To analyze educational actors' and D/HH students' perceptions regarding applied strategies for deaf or hard of hearing students.

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CHAPTER II

Theoretical Framework

Throughout history, the concept and meaning of integration in language teaching has evolved since its beginning. In the last decades of the industrial revolution, all the social aspects were influenced by the thoughts of the epoch, and education was not an exception. Taking into account the social environment of the era, if educating children was a matter of only a few students, the idea of providing education for all members of the society is relatively recent.

Integration

In the educational field, Stubbs (2008) argues that integration differs from inclusion since integration accommodates students with different needs in the same institution, but in a different classroom, it does not only arrange gifted students but also students with any kind of disability. Integration is aimed at a general social involvement of students by taking into account diversity inside the classroom, and curricular adaptations are needed because several factors have created segregation inside educational systems around the world. Perhaps, integration does not fit all the necessities of students that used to be segregated through history by gathering them together in a classroom, so it is not only mandatory to keep integration but also to include the students in all the activities curricular and extracurricular from the institutions. For the aforementioned reason is that integration is not a perfect solution on its own in order to help , which is why the concept of inclusive education had to be created as a more definite way of benefiting students with differences.

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Inclusive education

According to Stubbs (2008), a definition of inclusive education is not pertinently stated, different interpretations can be created among its meaning, so the main aim of it is that the environment must be adapted to the children, not vice versa. Moreover, inclusive education is a combination of different social influences such as: communities, activists and advocates, etc. On the other hand, even in the Universal Declaration of Human Rights in 1994, there are certain groups that tend to be excluded from the right of education, taking as an example the cases of indigenous people, students with disabilities, and people from different ethnic groups . However, as stated later in the Salamanca Statement and Framework for Action by UNESCO (1994), it emphasizes the necessity of adapting educational environments for all students without any exclusion, by marking a different way to deal with inclusion in the educational field. In short, inclusive education focuses and cares about students' needs and mainly focuses on students with disabilities.

Students with disabilities

Inside the English classroom, teachers may find a variety students with different capabilities and at some point they also may deal with students with disabilities, which is in constant evolution, and occurs between people with internal and external impairment that creates an obstacle to their equally based social participation with others (UN as cited in Armstrong, Armstrong & Spandagou, 2010). Regarding disabilities, Arguello (2013) mentions several types divided into sensory disabilities, psychomotor disabilities, cognitive or intellectual disabilities, autism spectrum disorder, Rett syndrome, and multi disabilities. First, sensory disabilities refer to those that affect the visual and auditory perceptions and interfere with a students ability to learn

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in a traditional sense, for example, a student with visual impairment will not be able to read a normal textbook without it being in braille. On the other hand, a student with an auditory impairment will struggle to listen to a class by a teacher without having a visual aid such as sign language. Second, psychomotor disabilities depend on every physical aspect that can interfere into the inclusion of a student. As an example, a student with a wheelchair. Cognitive disability or also called intellectual impairment refers to certain limitations in mental functioning and skills related with communication and social skills which can be low, moderate or severe. To illustrate, a student with Down syndrome will face issues when learning since they have a significantly lower intellectual capacity and will require extra attention and help in order to learn. Autism spectrum disorder may also have different levels of severity in affected students and causes them to have difficulty in creating relationships with their peers. For instance, a student with autism will not be able to work well in pair or group tasks in classes. Rett syndrome is defined by Arguello as an uncommon syndrome which is characterized for developing after the 6, 24 or 36 months of age and mainly developing in women by deteriorating their motorical, linguistic, cognitive and social functions, and developing severe or profound intellectual disability. For example, a student with this disability will not be able to perform ideally in a regular classroom in any type of learning activity like group work, listening activities, etc. Finally, Arguello mentions a final type of disability which is multi disabilities and it basically refers to a student that has more than disability simultaneously, for example, a student with both a visual disability and and a motorical disability might have to attend a specialized classroom due to the need of constant physical therapy and other needs for their learning process. Furthermore, students with auditory impairment or also referred to as deaf and hard of hearing students (D/HH) face greater

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difficulty in their educational process since most pedagogical theories are based on an oralist perspective (Marschark as cited in Rutkowski & Mostowski, 2020).

Deaf and Hard of Hearing Students (D/HH)

As mentioned above, there are many different types of disabilities which students may have. Therefore, for purposes of this research analysis, students who are Deaf and hard of hearing must be addressed by firstly defining who may be considered as a student deaf or hard of hearing. Arguello (2013) defines hard of hearing students as those who suffer from Hypoacusis, a segmental part of hearing loss; and defines deaf students as those who suffer from cophosis, total hearing loss, or deafness. Furthermore, hypoacusis has different levels that, according to Csizer and Kontra (2020), may be extremely severe or down to the range of very low. Of course, these ranges may vary from student to student.In addition, deaf and hard of hearing students are considered rather difficult to be taught by teachers which is why several researchers attempt to suggest specific strategies and approaches to help the teaching process become less complicated.

Teaching a new language to Deaf and Hard of Hearing Students

In many parts of the world, English as a Foreign language sometimes is not taught with a specific methodology to deaf and hard of hearing students (D/HH) as stated by Kontra and Kormos (2020) who also mention that the most pervasive approach is an oralist type. Stokoe's findings (as cited in Csizer and Kontra, 2020) mention that deaf and hard of hearing students require a more visual type of language that benefits their own cognitive development, which in term is sign language as their first language (L1). Therefore, English as a foreign language becomes an L3 for these particular students as Csizer and Kontra (2020) conclude. Since an oralist method proves a challenge for these students, an eclectic method is mainly used to teach

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D/HH students as observed by Kontra and Kormos (2020). In short, there are many types of approaches to teach English as a foreign language such as the grammar translation method, direct method, natural approach, communicative language learning, community language learning, etc. Nevertheless, the fault with these methods is its focus on using the verbal part of the language which is not available for D/HH students.

English as a Second Language (ESL)

English as a second language (ESL), is used to describe a non-native learner of English (*What is ESL: What is Ell: What is TESOL: What IS Esol: What is TEFL,* 2021) and is generally considered to be taught when English is not the first language of the learner residing in an English speaking country.

The definition that will be used in this research synthesis is the one provided by Mayer (2009) who defines as the categorization of English as a second language for a learner only in the instance that there is a precedent identifiable first language (L1) in the student. This definition matches what Davison (2007) proposed, students who have another language, not English, as their mother tongue, yet having some knowledge of English.

Furthermore, a particular finding by Mayer (2009) worth mentioning, is the conceptualization of English as a second language for deaf students whose first language is American Sign Language (ASL) since it is the immediate identifiable language that most deaf learners are exposed to and in turn converts English as their second language.

English as a Foreign Language (EFL)

In a general sense of the term, English as a foreign language is considered when a student is taught the language in a country where it is a non-native language. English, when it is not the

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first nor second language of a learner, is considered to be an L3 or English as a foreign language when it is taught in countries where English is not spoken (Csizer and Kontra 2020). This definition of English distinguishes English as a possible L2 from an L3 and mainly focuses on the context in which English is spoken and taught which Csizer and Kontra (2020) report that English is taught in educational institutions for only a few hours in a week. However, when EFL is taught to students who are deaf and hard of hearing, these learners are considered bimodal bilingual students since their first language is usually their native sign language and the second language is the national spoken language leaving English as an L3 at best (Palma and Steyer, 2013).

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CHAPTER III

Literature Review

English has become one of the most important languages around the world in the last decades and has found its way into the lives of almost everyone and everywhere. In education, English has become one of the most important subjects to teach and even has become a requirement when attempting to access institutions of higher education (Chen, 2018). In many instances, English is taught as a foreign or second language for only a few hours a week within the curriculums of the schools. According to Cziser and Kontra (2020), teaching English for such a short period of time does not represent an advantage for students nor is it the best methodology to be applied. The problem goes even further when, among the students of a general education classroom, there are students who are deaf or hard of hearing. As a matter of fact, the teachers aren't familiarized with appropriate pedagogical methods in order to instruct these students (Bedoin, 2011). Therefore, the main focus of this research synthesis is to determine which are the most effective strategies that EFL and ESL teachers use to teach D/HH students, and the teachers' perceptions towards the applied methods in teaching EFL and ESL to D/HH students. For purposes of this literature review, mixed method studies, case studies and grounded theory studies have been analyzed. All these articles date from 1995 up to 2020 which provide relevant information from the early stages of the findings in this field up to most recent and further developed research.

The articles used in this research synthesis have been divided into four sections respectively. In the first section are found the articles that have given certain emphasis on the

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matter of inclusive education regarding deaf and hard of hearing students. The second section uses the articles that focus on the methods and approaches used in EFL and ESL education for deaf students. In the third section, are the articles with a focus on the modifications conducted on the methods by the EFL teachers in order to apply them to deaf and hard of hearing students. In the fourth section, the articles are focused on the teachers' perceptions in applying the modified methods. Many researchers have attempted to provide with enough information and reports on EFL and ESL education for deaf and hard of hearing students and have found many crucial results from students and teachers perspectives. The results from these studies have benefited the educational community in many ways.

Inclusive education for D/HH students

One of the first and most important mentions of inclusive education was by UNESCO in the Salamanca Statement (1994), which states that every student has the right to have access to an equal opportunity in education. This powerful statement has created awareness and made many governments have implemented their own type of projects in order to provide inclusive education to different groups of students with disabilities, including deaf and hard of hearing students, who are placed together with their peers in general education classes (Huang, 2011). In his research about developing EFL strategies for students with learning disabilities, Huang (2011), also mentions the Taiwanese education inclusion program in which the government guarantees means of helping students with disabilities in general education classrooms. Nevertheless, Huang (2011) reports that many of the services offered by the inclusion program do not reach all students and further argues that inclusion programs should, and must be further developed in order to ensure quality education for students with disabilities.

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In another research, Chen (2018) focuses on the pressing matter of two case studies of taiwanese college students and how their experience was as deaf EFL students when entering an institution of higher education. In this research, Chen discusses the requirements that universities have regarding EFL policies for aspiring students into higher education. Chen briefly goes into detail about how the inclusion programs for deaf students still require to provide teacher training for students with hearing loss in higher education contexts and for the teachers to be more familiar with the conditions and requirements of their students with hearing loss in order to provide the quality education they deserve.

Furthermore, an interesting perspective of integration and inclusion can be found in the research of Geeslin (2007) who conducted a study on the differences in academic performance between deaf children of hard of hearing parents and deaf children of deaf parents. In this study, Geeslin compares the gap between the academic performances of the two groups of deaf students and reports the results from the Indiana School for the Deaf's implementation of a philosophy of bilingualism/biculturalism (Geeslin, 2007). Based on the background of deaf students from deaf parents' homes, the same philosophy was used and adapted to the school environment for deaf students from hearing parents, (Geeslin, 2007). The findings of Geeslin concluded that if the school can successfully replicate in the school environment to the same environment that deaf children of deaf parents have, the deaf children of hearing parents would improve their overall academic performance (Geeslin, 2007).

These research studies are an example of the evolution from the integration to the inclusion of D/HH students in the educational field. They highlight the importance of well

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trained teachers, who know about different methods, approaches and strategies to teach deaf and hard of hearing students.

Methods and Approaches in EFL/ESL education for Deaf Students

Although not much research is available regarding methods and approaches in EFL/ESL education for deaf and hard of hearing students, the few that have been conducted have provided thorough and clear knowledge as to which are the most commonly used and applied by teachers of D/HH students. The methods and approaches found are divided into their categories with the respective authors who reported their use by teachers. Some authors reported more than one method or approach per article and therefore appeared in more than one category.

- **Whole Language Teaching/CLIL**

Gerner de García (1995) reported that her applicational method was an approximation of holistic practice or holistic education. In her research conducted in Gallaudet University in Washington D.C, Gerner de García and stated that the use of the holistic practice provided great results with her different classes which were two different groups, the first group was formed by three Spanish dominant (native) students and the second group was of four Spanish dominant students. Gerner de García implemented many materials both visual, experimental, and included short field trips in her lessons which proved to have positive results in the ESL language acquisition of her group of students.

- **Multisensory Approach**

For the Multisensory approach, the research by Huang (2011) developed in Taiwan. The students taken into consideration were those with different learning disabilities (LD) in their

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process of learning EFL, among the students with learning disabilities were those considered to be deaf and hard of hearing (Huang, 2011). The research involved interviewing five teachers of students with learning disabilities in Taiwan regarding the methods used to teach students with LD, although the exact number of students was not specified (Huang, 2011). Many of the methods were used even with D/HH students in their classrooms and all proved to have satisfying results (Huang, 2011). The methods most applied were a multisensory approach, natural approach, direct method, and grammar translation method (Huang, 2011). According to Huang (2011) the teachers that most used the multisensory approach reported that the benefits of this method rely on its versatility regarding materials such as images and colors to stimulate the learning process. Huang (2011) also adds the high demand and recommendation of incorporating ICTs when teaching EFL to deaf and hard of hearing students due to the availability in using visuals that ICTs allow.

- **Natural Approach**

In the aforementioned study, Huang (2011) also reported the use of the natural approach by part of the teachers. Teachers based their decision on the reliability of teaching EFL to students with LD since teaching English is more important in real-life situations rather than structural knowledge based on form and not on notion or meaning (Huang, 2011).

- **Direct Method**

Huang (2011) also stated in his research of another popularly used method by teachers which was the Direct Method. The teachers mentioned that they preferred this method due to the step-by-step intrinsicality that the approach allows which in turn permitted the EFL teachers to

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provide immediate feedback to their students that allowed for good final results in lessons (Huang, 2011).

- **Grammar Translation Method**

Huang (2011) also reported a final approach widely used by teachers. The last method applied was the grammar translation method, which essentially teaches the grammar of English using the learners' first language and the teachers that used this method reported that they mainly used it to have students memorize lists of verbs and to get familiarized with the English language by comparing and contrasting with the students' first language (Huang, 2011).

Furthermore, a research conducted by Hilzensauer (2010), who collaborated with different countries and teachers to create an online project called "SignOnOne!", was based on the use of the Grammar Translation Method. Essentially, the online program would present the option to provide an explanation in the sign language of the adult D/HH students' L1. Hilzensauer (2010) reported that the D/HH students found the method used very helpful and insightful whenever they faced difficulties in understanding what was in the paragraph.

The final author that reported the use of the Grammar Translation Method was Chen (2018) who conducted the study in Taiwan with two D/HH students. The author stated that teachers in the research would use this method with their University level students that were D/HH. The technique was simple and straightforward, the teacher would type grammar explanations and have D/HH students read the sentences which was well received by the students (Chen, 2018).

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- Communicative Language Teaching

For this method, the authors Csizér and Kontra (2020) conducted a study in East-Central Europe in which a couple of methods were reported being used by the teachers of D/HH students; one of the methods was Communicative Language Teaching (CLT). The teachers interviewed preferred to use this method because, after many years of teaching, they realized that students would benefit more in their EFL classes from this method because D/HH students were able to work with their peers and could depend on them in case they needed help (Csizér & Kontra, 2020). In another aspect, the exact number of D/HH students from each teacher was not specified in the article.

Additionally, a research by Bedoin (2011) developed in France with 12 EFL teachers and about 60 D/HH students stated that the EFL teachers interviewed were more likely to use the Communicative Approach (Communicative Language Teaching) with their students whose native language was French. The teachers from the study preferred to teach their D/HH students how to communicate correctly with a focus on the skills available to deaf and hard of hearing students which were reading and writing instead of speaking (Bedoin, 2011).

Another study which was focused in CLT is the one conducted by Fukuda (2009) whose research was motivated by the knowledge of having a deaf student in his EFL class. The study was focused on Japanese speaking D/HH students, although the number of participants were not specified (Fukuda, 2009). Furthermore, the author reported that CLT was the method most commonly used in Japanese universities (Fukuda, 2009). The reasons for CLT to be included into Japanese curricula in universities is mainly due to the method's focus on communication which makes the students the center of the class and the teacher is just a type of guide (Fukuda, 2009).

Nonetheless, the problem with CLT as a method to teach D/HH students is that it's focus on communication is mainly in speaking and listening, both of which are a problem for D/HH (Fukuda, 2009). The aforementioned reason is why Fukuda (2009) reported some useful modifications for the method that could be done to better fit with students who are D/HH.

- **Total Physical Response**

In a research conducted by Cordero-Martinez (1995) in Gallaudet University in Washington D.C, the author reported the use of the Total Physical Response approach with ESL D/HH students at an early age by teachers. The students that were D/HH would benefit from the opportunities that the method provided such as more interactive activities and integrated the lesson activities with other senses such as touch and sight. Though, the study did not specify the number of students who were taken into account for the research (Cordero-Martinez, 1995).

- **Task Based Learning**

In the same research by Csizér and Kontra (2020), the authors further reported another approach used by teachers of D/HH students which was Task Based Learning. The teachers stated that they would use this method with D/HH students who would prefer to work alone and at their own pace without the interaction with their peers since some D/HH students did not feel comfortable in group activities (Csizér & Kontra, 2020).

- **Visual-Spatial Approach**

With regards to the Visual Spatial Approach, a couple of authors were found to have conducted studies with focus on this approach. One of the researches by these authors was conducted by Rutkowski and Mostowski (2020) in Poland. In this study, Ruktowski and

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Mostowski (2020) created a multimedia textbook for students of EFL, among other subjects, at the University of Warsaw. The Visual Spatial approach was applied by including short video clips of PJM (Polish Sign Language) in the online multimedia textbook in which students were able to view the explanation as many times as they needed (Rutkowski & Mostowski, 2020). An important fact to mention is that the number of D/HH students who partook in the study were not specified.

The second research conducted was by Cordero-Martinez (1995). In this study, the author reported the use of a Visual-Spatial approach applied to D/HH students of the English Language Institute program (ELI) of Gallaudet University. The author reported that this approach and techniques related to the approach were selected because of the nature of sign language and its visually based components (Cordero-Martinez, 1995). Cordero-Martinez (1995) also stated that teachers of the ELI would use visual techniques such as placing subject related props around the classroom in order to present a lesson or tell a story which helped students follow and understand the lesson.

- **Computer-Assisted Language Learning**

Leis (2016) portrays in her document the use of computer-assisted language learning (CALL) to assess listening skills through intonation phrases (IPs) and reading passages in a scrolling manner to Japanese D/HH students. For this purpose, five participants, three females and two males from college level were interviewed and tracked their beats per minute with an average age from nineteen to twenty-four (Leis, 2016). The research was done by using several electronic tools in order to assess and measure the level of anxiety from D/HH students during a listening test with two different methods. The first method with the script from the listening as a

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reading passage scrolling on the tablet with no pauses. The second method was with different utterances presented in a written format, but with pauses as the listening goes on (Leis, 2016). However, three of the participants felt anxiety while the reading passage was presented. It was reflected on their bpm with a little heart rate increase, and during the interviews done by the researcher, the participants argued that the reading passage method was too fast to follow (Leis, 2016). On the other hand, four of the participants in this research responded more calmly to the IPs method and showed their preference to this method rather than the reading passage by expressing their preference during the interview (Leis, 2016).

- **Mixed Methods**

In this category, the authors of the studies analyzed reported only strategies or techniques applied with their participants but not to which method they belonged. Therefore, these studies all fit into the category of mixed methods.

The authors Palma and Steyer (2013) conducted a research which reported that many EFL and ESL instructors had several difficulties when teaching both EFL and ESL to hearing impaired students, and a great deal of these issues were the results of a lack of appropriate teaching methods specific in English as a foreign or second language to hearing impaired students. Palma and Steyer (2013) conducted a vacuum of research with a group of deaf students in higher education in Venezuela whose native language was Spanish; although, the number of participants was not specified. The results of this research ended in a proposal of teaching method tips best suited for teachers to use with EFL/ESL deaf and hard of hearing students which were focused on two different perspectives: from applied linguistics, and from deaf students (Palma and Steyer, 2013). From the applied linguistics perspective, the authors affirmed

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that the use of visuals such as images, flashcards, and other input alike increases D/HH students EFL/ESL language acquisition especially when paired with other criteria such as topicalizing the lessons with image sequencing, and teaching function words with appropriate images, among other very insightful tips (Palma and Steyer, 2013). On the other hand, the perspective of the deaf provided different tips and recommendations which Palma and Steyer reported were didactic games for classes, development of software for educational purposes, and others. (Palma and Steyer. 2013)

Furthermore, a study by Brokop and Persall (2009) which was focused on teaching writing strategies to deaf and hard of hearing students; explored different techniques for writing which were used by professional writers in order to develop D/HH students' writing skills. In their research, Brokop and Persall (2009) approached the writing skill by teaching students writing as a process and dividing it into phases in which students were then taught how to develop each phase of writing appropriately.

Another research, which was conducted by Domagała-Zyśk and Kontra (2016), focused on providing insightful strategies in order to teach Deaf and Hard of Hearing students EFL or ESL. Domagała-Zyśk and Kontra (2016) conducted a study with forty D/HH students in Poland whose native language was Polish. The authors reported towards the end of the study that D/HH students should not only learn the English language through lipreading but also through different strategies like grammar or vocabulary focused lessons. Furthermore, the authors also stated a couple of recommendations when teaching words strictly related to audibility and that teachers should be sensitive when approaching said topics (Domagała-Zyśk and Kontra, 2016). Although

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a specific method was not mentioned, a mixture of them with their respective recommendations and alternatives were all stated in this research. (Domagała-Zyśk and Kontra, 2016)

In addition to mix methods used for teaching EFL D/HH, it is the study by Sedláčková and Kontra (2019). In their research, they conducted semi structured interviews to four Czech D/HH adults whose native language was Czech or Czech sign language and had finalized their university studies. The interviews conducted asked the participants about their preferred teaching and learning techniques as well as their strategies and what they believed to be their needs and difficulties (Sedláčková & Kontra, 2019). The techniques and strategies reported in the study were mainly focused in the use of visuals, combination of cued speech and writing techniques such as air writing (Sedláčková & Kontra, 2019). Furthermore, the students interviewed reported that they didn't feel satisfied with the techniques applied since they were mainly teacher centered (Sedláčková & Kontra, 2019).

Another study which was conducted by Gülengül Birinci and Sarıçoban (2021) with eighty deaf students from a high school in Turkey reported results from two different groups of deaf students whose native language was Turkish. The first group was taught English vocabulary through the application of visuals (puppets, realia, props, photographs, etc.) as opposed to the second group which were only taught vocabulary through words alone (Birinci & Sarıçoban, 2021). Furthermore, the authors stated that the two groups were tested in two separate occasions: one was at the very end of the course and the other a few months after in order to test long term knowledge retention (Birinci and Sarıçoban, 2021). Towards the end of the study, the authors mentioned that the findings proved that the use of visuals significantly improved the language

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acquisition process of D/HH students which also had a positive effect in their long term knowledge retention (Birinci and Sarıçoban, 2021).

On the other hand, a research by Domagała-Zyśk and Podlewska (2021) conducted in the John Paul II Catholic University of Lublin reported the findings of years of their studies regarding EFL and D/HH students from Poland. The authors mentioned that throughout years of giving classes at the university which were three year courses of about sixty classes, they gathered information as to which type of strategy combination had the best results when teaching EFL to D/HH. In their study, the authors Domagała-Zyśk and Podlewska mentioned that their EFL D/HH students native language was Polish or Polish sign language and showed better results to combinations of strategies which were lessons focused on individualization, emotionalization, lexical analysis, multisensory memorization, structuralization, and experiential learning (Domagała-Zyśk & Podlewska, 2021). The first strategy, individualization, allowed D/HH students complete activities at their own pace. The second strategy of Emotionalization had its focus on giving D/HH students examples of vocabulary focusing on the emotion it may cause (Domagała-Zyśk & Podlewska, 2021). The third strategy, lexical analysis, had D/HH students research and learn words in depth. Multisensory memorization which was the fourth strategy focused on teaching D/HH students by using their other perceptive skills such as sight, touch and smell (Domagała-Zyśk & Podlewska, 2021). The fifth strategy, Structuralization, focused on visually showing D/HH the basic structures of the English language as a basis for their knowledge. Finally, experiential learning provided D/HH students with lessons which positioned students into situations where they had to solve an issue or complete a situation as if they were in it . According to Domagała-Zyśk and Podlewska (2021), the results of the application of these strategies combined can achieve the best results for D/HH students' learning

process of EFL. Furthermore, a strong recommendation is to consider D/HH students' feedback which can help EFL teachers better prepare their future lessons (Domagała-Zyśk and Podlewska, 2021.

Another study which was considered to fit into this category was one conducted by the authors Long, Vignare, Rappold, and Mallory (2007) who reported the results of applying a blended learning course of ESL to D/HH students. In their research, the authors surveyed 908 students from the Rochester Institute of Technology in California of which 36 were deaf students, 28 were hard of hearing, and the rest were hearing-able students. The blended learning course which the students were a part of consisted in combining classes in person with online classes that were mainly discussion boards and chat rooms. The results of the research were that D/HH students in the ESL blended course greatly improved in their communication and interaction skills with their classmates and even their teachers (Long et al., 2007). The reason that D/HH students improved was mainly due to the opportunity they had to answer questions and share their ideas at their own pace and learn from their peers' answers as well (Long et al., 2007).

In the study of Ávila (2011) carried out in Colombia with eleven deaf students whose native language was Spanish and with no previous English instruction from different academic programs in a public university. The study was done in a program where students received blended classes in order to collect data regarding students' perceptions during the course (Ávila, 2011). As stated in the paper blended learning is an amalgamation of face-to-face classes and online instruction by using different tools of both kinds of preparation (Ávila, 2011). Data were collected through surveys, research logs, and video recorded formal interviews (Ávila, 2011).

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The research showed that students felt more motivated and comfortable with the use of blended instruction since they had improved their language use and understanding through different tools used by the same students to investigate the topics from the course (Ávila, 2011). On the other hand, students' motivation increased because the goal of the course was imposed by the students to learn English as a foreign language as stated by the author "students' tendency for using the Internet as an effective and attractive strategy to complement the face-to-face sessions" (Ávila, 2011). At the end of the course, students showed an increased motivation according to the course and English learning (Ávila, 2011). In addition, Blended Learning shows a deep motivation to work collaboratively with their peers in order to enhance their communicative skills, portrayed by a final survey where students considered collaborative work brought positive language learning (Ávila, 2011).

In the same way, research conducted by Smetana, Odelson, Burns, and Grisham, (2009) presented a common liking for comic books from the four researchers, and they had the idea to incorporate comic books and graphic novels to D/HH students' instruction of English. The authors applied it in a summer class of students who failed ninth and twelfth grade English classes (Smetana et al. 2009). According to the authors, typical students' exposure to the language is limited to conversations with English native speakers, television and audio recordings, but with comic books and graphic novels students' motivation increased by reading the topic because these tools may supply the natural conversational input that D/HH students lack (Smetana et al. 2009). Comic books and graphic novels provide a richer context for students to engage and acquire new vocabulary. In addition, comic books enrich enjoyment of the genre as well as practice reading in the target language without feeling uncomfortable or just consider it as a simple task. For example, it is important to point out two different trending comic books:

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Invincible and X-Mensome which were some of the materials used by the researchers (Smetana et al. 2009). The classes were conducted through discussions, which enhanced students' higher order thinking skills (Smetana et al. 2009). Moreover, this addition of graphic novels and comic books does not only allow the teacher to create group discussions but also the study of different themes and how to create students' own comics. As a matter of fact, topics such as premise, plot, and twist can be also studied with the integration of comic books and graphic novels to an English class for deaf and hard of hearing students (Smetana et al. 2009).

Modification in Methods by EFL Teachers

Although many methods and approaches were reported by the authors' research, not every study provided sufficient information as to how some teachers modified the approaches to benefit their deaf and hard of hearing students' learning needs. Such was the case of the following Csizér and Kontra (2020), who did not provide information of modification for the Communicative approach and the Task Based learning method. For that reason, the sections for Communicative approach and Task based learning do not mention modifications.

- **Whole Language Teaching/CLIL**

One study regarding modifications in Whole Language Teaching was conducted by Gerner de García (1995) in which she stated that her students were taught ESL with slight modifications in the Whole Language Teaching method. Gerner de García (1995) reported that her D/HH students were taught English through the use of other subjects such as History reading. and simple science projects. Since Whole Language Teaching is a method that involves English as a whole and doesn't separate it by components, the author of the study applied it to D/HH students by teaching them the English language by means of other subject related tasks and

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projects (Gerner de García, 1995). The social studies related tasks were focused on reading novels and history related books in order to learn English while also learning about History (Gerner de García, 1995). On the other hand, the science project involved the D/HH students visiting a greenhouse and growing their own small plant while the process of growth and care was explained in English (Gerner de García, 1995).

- **Multisensory Approach**

Huang (2011) stated that some teachers that were interviewed had a special preference for a multisensory approach when teaching their students. The teacher believed that their students with learning disabilities would benefit from modifying this approach by including many different activities in the classroom which activated their students' different senses (Huang, 2011). A few of these activities included using whiteboards, role plays, and visuals all in a single lesson in order to have better activation of all the students' senses (Huang, 2011).

- **Natural Approach**

In the study conducted by Huang (2011), the author reported the reasons why teachers preferred to modify the Natural approach with their students with LD. The main reason was to teach EFL with its aim in the meaning of the language (Huang, 2011). One participant that used the Natural approach would modify it to suit her students needs and their specific learning disabilities and carried out her classes with a focus on everyday use of the language like tasks and so on (Huang, 2011).

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- Direct Method

In the same study by Huang (2011), other teachers that were interviewed reported that they had a special preference for applying modifications in the Direct method which allowed their students to use the English language, practice it, and then they received immediate feedback by the teachers in order to improve where the students had failed or made mistakes (Huang, 2011). Another teacher that was interviewed stated that her preference for this method was due to the communicative nature of learning the English Language and believed that modifying it by not including grammar explicitly would motivate her LD students to learn the English language (Huang, 2011).

- Grammar Translation Method

In the research conducted by Huang (2011), the final approach modified and preferred by teachers was the Grammar Translation method. The author stated that teachers still preferred to modify this method to suit their students with LD needs because of its simplicity and focus on vocabulary and grammar of the English language (Huang, 2011). The interviewed teacher stated that it was simpler to apply classes with LD students since the class was given in the students' native language, and that to adapt it to their specific needs was more accessible (Huang, 2011).

Hilzensauer (2010), in an innovative and a groundbreaking attempt, conducted a research study by implementing a digital online course focused directly on teaching EFL to deaf students. The research involved different countries from which a group of deaf learners were selected to test out the online course. The author reported that many methods in teaching EFL to D/HH students focus on communication skills such as listening and speaking, which in turn excludes D/HH students from learning English as a foreign language (Hilzensauer, 2010). For this reason,

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Hilzensauer decided to work on the second phase of the project "SignOn!" and called it "SignOnOne!" where many EFL teachers who knew American sign language (ASL) and the sign language (SL) of the countries that participated in the research project collaborated together and created the online project which promised to help D/HH students to learn EFL (Hilzensauer, 2010). The research conducted developed a useful program for deaf students to learn the basics of the English language by implementing video recorded explanations of the lessons provided (Hilzensauer, 2010). The videos had EFL teachers which would explain the topics in ASL or SL of the deaf students' country. Hilzensauer proposed a different approach on English as a foreign language teaching for D/HH students which focused on the written aspect of the language more than the spoken aspect. Based on this approach, Hilzensauer developed the program which helped students learn the basics of English as a foreign language and learned by modified versions of grammar translation method that, instead of teaching grammar rules, provided visual translations of word for word or phrases. In addition, the program provided a modified version of the natural approach by providing visuals of each sentence which were based on real life situations. The findings of Hilzensauer provided a different perspective on the way in which English can be taught as a foreign language to deaf and hard of hearing students.

Additionally, a study conducted by Chen (2018) also reported the modified use of the Grammar Translation method. Chen (2018) had conducted some interviews in a Taiwanese University and found that one of the professors in charge of an English course for students that were D/HH would apply a simple modification in grammar translation. Chen (2018) stated that the interviewed professor would use his computer to type explanations and grammar rules in both English and Chinese which would then be projected on the big screen for the D/HH students to read at the same time that the teacher would write down the texts. Chen (2018) reported that

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this take on modifying the grammar translation method was not well received with the students that were the focus of the research but that they understood the lessons overall (Chen, 2018).

- **Communicative Language Teaching**

Methods and approaches for teaching EFL or ESL are based on an oralist type of mechanism which presents difficulties when attempting to teach English to D/HH students, and that is why many teachers have to rely on modifying the known existing EFL and ESL methods of teaching (Bedoin, 2011). In this research, Bedoin analyzed the current situation of twelve French EFL teachers in a secondary school in France and the struggles they faced when teaching students who were deaf and hard of hearing. Bedoin (2011) stated that teachers sometimes struggle more when there is a group of students who are deaf and another who are hard of hearing. According to Bedoin (2011), since they have different capabilities and requirements depending on the degree of deafness and considering both groups of students are not homogenous, it caused the teachers' struggles. Bedoin (2011), in her research, concluded that EFL teachers may resort to modified oralist lessons, based on the communicative approach, with students who are hard of hearing, and resort to reading and writing focused lessons with deaf students by providing handouts of dialogues depending on the activity in order to provide the most comfortable learning experience.

Additionally, in this category are the modifications made by Fukuda (2009). In this study, the author expressed that in Japanese universities, it is very common for teachers to employ CLT in their EFL classes (Fukuda, 2009). The author stated that this method was not entirely suited for D/HH and suggested certain modifications that can be included and which proved to be very useful. Aside from the basic forms of communication that can be employed with D/HH students

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such as lip reading, cued speech, air written letters on in the palm, and gestures, the author stated that the insertion of a note-taker for the D/HH student or students (Fukuda, 2009). The function or role of the note-taker is to write down what the teacher is explaining or saying at that moment, so that the D/HH student can follow the lesson as the teacher is explaining (Fukuda, 2009). Furthermore, Fukuda (2009) mentioned that this modification can greatly help D/HH follow the lesson with a deeper level of understanding and recommended to also send advancements of the lesson to D/HH students as a way of preparing them beforehand.

- **Total Physical Response**

In a study conducted by Cordero-Martinez, the teachers of the Gallaudet English Language Institute were interviewed as part of the research and questioned about the methods preferred for teaching deaf and hard of hearing students in the Institute which focused solely on literacy skills such as reading and writing (Cordero-Martinez, 1995). Cordero-Martinez (1995) reported that many teachers preferred to apply the Total Physical Response (TPR) method in early levels with deaf and hard of hearing students because of its nature to involve other sensorial perceptions in teaching such as visual and tactile senses. Teachers of the English language institute used the modified TPR version in ways such as calling students attention by flickering the lights of the room only for a few times in order to not create annoyance by the action (Cordero-Martinez, 1995).

- **Visual-Spatial Approach**

As for the Visual-Spatial approach, in the research conducted by Rutkowski and Mostowski (2020), they stated that in their research, the decision to create a multimedia textbook

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for deaf and hard of hearing students was based on a visual spatial approach which they modified for the purpose of the study. The modification created by them was implemented into the textbooks that presented visuals of PJM (Polish Sign Language) which provided explanations for the lesson or the paragraph in which D/HH students would need PJM explanations (Rutkowski & Mostowski, 2020).

Furthermore, in the research by Cordero-Martinez (1995) the author mentioned that teachers involved in the study would base some lessons on the Visual-Spatial approach and modify it to suit their D/HH students special needs by applying certain techniques and use of classroom props aside from the use of SL (Sign Language) to present lessons and explanations. Cordero-Martinez (1995) briefly emphasized that the nature of SL itself has visual components to it and the use of it by teachers to teach EFL is a way to address the Visual-Spatial approach.

- **Mixed Methods**

Another study conducted by Brokop and Persall in 2009 focused on the modifications made by EFL teachers to specifically target the writing skill when teaching EFL to D/HH students. The reason for focusing on the writing skill was reported to be of greater importance for deaf and hard of hearing students since writing proved to be the means of communication mostly used by D/HH students in many aspects of their lives in which they needed to communicate with hearing peers both in work and in school (Brokop and Persall, 2009). In addition, Brokop and Persall (2009) reported that EFL teachers applied approaches used by skilled writers in order to intrinsically impart strategies used to develop the writing skill in their students by teaching writing as a thorough and complex process. Brokop and Persall (2009) achieved to teach writing as a complex process by instructing students with the Writer's

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workshop approach which was modified to fit the learner's age and level of English. Furthermore, the strategies involved with this approach taught students the many phases of writing such as pre-writing, revising, editing and final drafts with each phases' own individual strategies which all demonstrated to increase deaf and hard of hearing students' level of writing (Brokop & Persall, 2009).

Teachers' and D/HH Students' Perceptions towards Application of Modified Methods in EFL Classrooms with Deaf and Hard of Hearing Students

In this section, there was less information stated in the research studies analyzed regarding the perceptions of teachers' and D/HH students' perceptions towards the application of modified methods. Consequently, the approaches or methods and studies that will not be mentioned are those that were focused on the Multisensory approach, Natural approach, Direct method, Total Physical Response and Visual-Spatial approach. Furthermore, the only perceptions that were found for teachers' perceptions were for Whole Language Teaching, Communicative Language Teaching and mixed methods. As for students' perceptions, the only approaches mentioned were Grammar Translation method, Communicative Language Teaching, and Task Based Learning.

Teachers' Perceptions

- **Whole Language Teaching/CLIL**

In another research conducted by Gerner de García (1995) as a teacher for Gallaudet University, she worked with two small groups: one of 3 hispanic D/HH students and another of 4 hispanic D/HH students. Gerner de García applied a simplified version of whole language

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teaching with her students by separating the topics into sequential units and incorporating interactive projects and even short field trips. One of the projects with the first group resulted in the students and teacher finding a historical error in one of the books they were reading which resulted in the students becoming even more interested in the activity since the project slightly addressed the students' culture (Gerner de García, 1995). On the other hand, with her second group she incorporated a field trip with a science related project of growing their own vegetables. Towards the end of her study, Gerner de García (1995) stated that this modified version of whole language teaching paired well with her students who felt motivated, and that she felt greatly satisfied with the rewarding results that her students showed through the application of her modified method. Although Gerner de García mentioned that her approach was to a simplified version of whole language teaching, by analyzing her activities and projects, it is safe to say that her approach resembled an early application of CLIL.

- **Communicative Language Teaching**

Bedoin's research from 2011 also provided some very insightful data regarding how teachers felt and perceived the application of modified methods in teaching deaf and hard of hearing students. In the study, twelve French teachers were interviewed about their overall experience with deaf and hard of hearing students of which Bedoin (2011) reported that many of the teachers felt frustrated and flustered when having to modify the approaches such as the communicative approach in which instead of focusing on the speaking skill, teachers had to focus on writing and reading with the use of adapted visual materials that they had to develop. All of the interviews conducted in the study concluded that the EFL teachers had to adapt the lessons and the methods in accordance to their deaf and hard of hearing students' requirements

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and capabilities (Bedoin, 2011). Out of the twelve interviews, all of the teachers agreed that teaching using English was nearly impossible and therefore resorted to the use of French, French sign language or any means of language familiar to the students in order to conduct an appropriate language learning experience through the methods at hand which were mainly modified versions of the communicative approach (Bedoin, 2011).

- **Mixed Methods**

Furthermore, in their research Domagała-Zyśk and Kontra (2016) reported that EFL teachers commonly shared the same struggles as the teachers from Bedoin's (2011) research with the same discomfort when teaching D/HH students because of the inadequate EFL methods for these students. The most common methods used are outdated ones which solely focus on structure and vocabulary, such is the case of traditional EFL methods like The Grammar Translation Method, TPR, Structural Approach, etc., which teachers no longer approve of and in turn feel isolated and unmotivated when teaching (Domagała-Zyśk & Kontra, 2016). Additionally, Domagała-Zyśk and Kontra (2016) stated that although the traditional and general methods of teaching are effective with D/HH students, they are not the most adequate, and that modifying these methods to better suit D/HH students group needs will be a better approach into providing them proper educational support which what they achieved in their research. Domagała-Zyśk and Kontra worked with 40 D/HH students over the course of 14 years at the John Paul II Catholic University of Lublin (2016). At the end of their research, the applied modified strategies resulted in positive results to which teachers felt a broad range of creativity at their disposal additionally the feeling of support and motivation for both the students and

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themselves as teachers. Furthermore, future teachers are assured to have the same experience through the application of the modified strategies (Domagała-Zyśk & Kontra, 2016).

Deaf and Hard of Hearing Students' Perceptions

- **Grammar Translation Method**

Another research by Chen (2018) focused primarily on two Tawainese Deaf students coursing their Coll level education and addressed their perceptions and experiences on their overall University process and the requirements set out by the institution. Chen (2018) reported that the two foci students of the research among other participants, had negative perceptions of EFL courses and English in general. The requirements set by the University felt very high, and the methodology that the teacher applied did not help as much since the classes were conducted by a modification of the Grammar Translation Method which did not always suit well with the students (Chen, 2018). According to Chen (2018), the teacher conducted his classes by typing sentences and explanations in English and Chinese on his computer which was projected on the screen at the front of the class for the D/HH students to read. Furthermore, D/HH students stated that they felt alone and completely at disadvantage with their entire learning experience in the University in both L1 classes and EFL classes (Chen, 2018). To conclude, the students from this research mentioned an overall negative educational experience due to the institution's way of managing D/HH students' situation but still lacked further help including the methods modified and applied by EFL teachers in the classroom which they disapproved of and demotivated them even further.

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-   Communicative Language Teaching

On the other hand, deaf and hard of hearing students also have mentioned how they have felt with their educational experience with teachers who apply modified methods. Such is the case of a study conducted by Csizér and Kontra (2020) in which 54 participants from different countries in Institutions of higher education participated, and many perspectives from D/HH hearing students were collected regarding methods, strategies and overall personal experiences as students. Csizér and Kontra (2020) reported that D/HH students from Austria preferred when an EFL teacher uses a method resembling Communicative Language teaching and incorporates group works with their peers.

-   Task Based Learning

Furthermore, other D/HH students that were interviewed stated that they felt more comfortable with a version of Task Based Learning in which they could work individually, enhance their level of English, and complete tasks by applying their own strategies at home such as viewing movies with subtitles or using different apps which they found to be useful which helped increase their own motivation (Csizér & Kontra 2020). Overall, students seemed to have their own perception and preferences that depended on the modified method that their teacher applied or to what they were used to.

In short, all of the previous studies have given a holistic view of the process and reality that many deaf students face when coursing an EFL or ESL course in different settings and the struggles which EFL and ESL teachers face when instructing EFL and ESL to deaf and hard of hearing students. From the students' position, they must initially face the difficulties in inclusion

from a language perspective since their first language will always be the sign language they acquire, their second language will be their native tongue, and their third language will be English. In academic settings, D/HH students require proper learning environments that promote their type of language acquisition, and therefore must be implemented by the teachers. Regarding methods and modification in methods for teaching EFL or ESL, the analyzed studies demonstrated the lack of a single type of method for teaching EFL or ESL to D/HH and required that the teachers adapt or modify known approaches in order to suit D/HH students' immediate capabilities and learning needs. Finally, other studies provided a closer look into the EFL teachers' perspectives of applying the modified methods to deaf and hard of hearing students. The studies found a common ground in what teachers believed to be the most pressing matter at hand which was the number of complications presented when having to develop materials for the modified methods for teaching EFL or ESL to D/HH students. All of the aforementioned aspects are what both teachers and deaf and hard of hearing students have to experience during the process of learning English as a second or foreign language.

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CHAPTER IV

Methodology

This research is an exploratory bibliographic research synthesis which is based on the use of different academic articles focused on methods and approaches used to teach EFL and ESL to deaf and hard of hearing students, as well as perceptions regarding said approaches from teachers who have the aforementioned students within their classrooms. These articles were analyzed and examined considering they are empirical studies which include pedagogical methods or approaches used by EFL and ESL teachers in their classrooms with students who are deaf and hard of hearing.

The terms used to research teaching EFL and ESL to deaf and hard of hearing students were: a) methods to teach EFL and ESL to deaf and hard of hearing students, b) EFL education for deaf students, c) EFL teachers of deaf and hard of hearing students, d) deaf students' EFL language acquisition. In addition, the academic articles were chosen and retrieved from sites such as Proquest, Springerlink, Google Scholar, and EBSCO, and were qualitative, quantitative, mixed methods in nature. Thereafter, the articles were classified considering a specific criterion and used later for further purposes of analysis and synthesis.

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The journals that were considered and used for the research purposes of this study were: *Journal of Adolescent & Adult Literacy, Pedagogická Orientace, The Language Learning Journal, The International Review of Research in Open and Distributed Learning, Journal of Language and Linguistic Studies, Bilingual Research Journal, The Internet TESL Journal, The Modern Language Journal,* and *European Journal of Special Needs Education* (Appendix).

CHAPTER V

Analysis of Data

Introduction

For this research synthesis, twenty studies were collected from a variety of sources and were categorized according to the purpose of this paper which is to analyze and identify methods used by EFL and ESL educators to teach Deaf and Hard of Hearing students, and paying close attention to the perceptions on the modified methods. The year and continent of the articles' publication, the educational level, and methods used were taken into consideration for this paper. The main focus categories are the modifications in methods by EFL and ESL teachers, and the perceptions of teachers and D/HH students.

Table 1 Year of Publication

Publication Year of the Studies

Year of publication	Author(s)	No. of Studies

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1990 – 2000	Cordero-Martinez, (1995); Gerner de García (1995)	2
2001 – 2010	Long, G., Vignare, K., Rappold, R. P., and Mallory, J. R., (2007); Brokop and Persall (2009); Fukuda (2009); Smetana, L., Odelson, D., Burns, H., & Grisham, D. L., (2009); Hilzensauer (2010)	5
2011 – 2021	Huang (2011); Bedoin (2011); Ávila (2011); Palma and Steyer (2013); Domagała-Zyśk and Kontra (2016); Leis (2016); Smith (2016); Chen (2018); Csizér and Kontra (2020); Sedláčková (2019) Rutkowski and Mostowski (2020); Gülengül Birinci, F., and Sariçoban, A. (2021); Domagała-Zyśk, E., and Podlewska, A.(2021)	13

Note. N=20

Table 1 shows the articles and their respective years of publication. The articles were divided into three periods of ten years each. The first period dates from 1990 to 2000 with only two studies which both were from 1995 (Cordero-Martinez, 1995; Gerner de García, 1995). The second period dates from 2001 to 2010 with five articles one from 2007, three from 2009 and the other from 2010 (Long et al., 2007; Brokop & Persall, 2009; Fukuda, 2009; Smetana et al., 2009; Hilzensauer, 2010). Finally the last ten-year period dates from 2011 up to 2021 with the most part of articles dated during this period (Huang, 2011; Bedoin, 2011; Ávila, 2011; Palma & Steyer, 2013; Domagała-Zyśk & Kontra, 2016; Leis, 2016; Smith, 2016; Chen, 2018; Csizér &

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Kontra, 2020; Sedláčková, J., and Kontra, 2019; Rutkowski & Mostowski, 2020; Gülengül Birinci, F, & Sariçoban, A. 2021; Domagała-Zyśk & Podlewska, A, 2021). It can be easily observed that in the first two periods not many studies were found related to teaching EFL and ESL for deaf and hard of hearing students. On the other hand, in recent years starting from 2011 with the articles of Huang (2011), Bedoin (2011), and Ávila (2011) shows an increase in interest in the field of education towards teaching D/HH students EFL and ESL. Even though research in this area of EFL and ESL education has increased noticeably, also noticeable is the gap in between research articles which demonstrates the need to further impulse and promote more research in the area of EFL and ESL education for D/HH students which is worth mentioning.

Table 2 Location

English, being one of the most spoken languages worldwide and taught in almost every educational level, it was of relevant importance to consider the location where the articles analyzed were developed and to later be categorized for the purpose of this paper.

Continent of the Studies

Continent	Author(s)	No. of Studies
North America	Cordero-Martinez, (1995); Gerner de García (1995); Smetana, L., Odelson, D., Burns, H., & Grisham, D. L. (2009); Long, G., Vignare, K., Rappold, R. P., and Mallory, J. R. (2007)	4
South America	Palma and Steyer (2013); Ávila (2011)	2

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Asia	Fukuda, S. (2009); Huang (2011); Chen (2018); Leis (2016); Smith (2016); Gülengül Birinci, F., and Sariçoban, A. (2021)	6
Europe	Bedoin (2011); Brokop and Persall (2009); Sedláčková, J., and Kontra, E. H. (2019); Hilzensauer (2010); Domagała-Zyśk and Kontra (2016); Csizér and Kontra (2020); Rutkowski and Mostowski (2020); Domagała-Zyśk, E., and Podlewska, A. (2021)	8

Note. N=20

Table 2 shows the division of the articles by continent. In North America, four articles were analyzed which were related to teaching EFL and ESL to D/HH students (Cordero-Martinez, 1995; Gerner de García 1995; Smetana et al., 2009; Long et al., 2007). On the other hand, two articles were analyzed from South America (Palma and Steyer, 2013; Ávila, 2011). In Asia, six articles were found and analyzed which provided a handful of information for this paper (Fukuda, S., 2009; Huang, 2011; Chen, 2018; Leis, 2016; Smith, 2016; Gülengül Birinci, F., and Sariçoban, A., 2021). Finally, the continent with the most amount of articles found and analyzed were from Europe, these articles provided with a lot of data related to methods, strategies, other aspects pertinent to the purpose of this paper (Bedoin, 2011; Brokop & Persall, 2009; Sedláčková, J., & Kontra, E. H., 2019; Hilzensauer, 2010; Domagała-Zyśk & Kontra, 2016; Csizér & Kontra, 2020; Rutkowski & Mostowski, 2020; Domagała-Zyśk, E., & Podlewska, A., 2021). An important fact to mention is that Europe leads in studies conducted for EFL and ESL education for D/HH students. This may be due to the fact that important places such as the city of Paris, and the country of Poland both began to consider education for the deaf

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centuries ago by implementing schools although with not much success (Rutkowski & Mostowski, 2020). Other articles from Asia focused more on the political aspect and requirements from Institutions of higher learning regarding English and reported more on the EFL methods used by teachers (Huang, 2011). Is important to address the deficiency of research related to the teaching of EFL and ESL to deaf and hard of hearing students in the continent of South America; a noticeable gap can be observed and should be mentioned in order to improve the educational level of EFL and ESL for D/HH students in South America.

Table 3 Educational level

The following table divides the articles analyzed into the different educational levels in which the authors conducted their research. The data from the educational levels is important to the purpose of this paper because the data provides necessary information about where in the different levels of education is given the most emphasis in research and where there is less emphasis.

Educational Level

Educational Level	Author(s)	No. of Studies
Primary	Bedoin (2011); Domagała-Zyśk and Kontra (2016); Rutkowski and Mostowski (2020)	3
High school	Huang (2011); Brokop and Persall (2009); Smetana, L., Odelson, D., Burns, H., & Grisham, D. L. (2009);	4

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	Csizér and Kontra (2020); ; Gülengül Birinci, F., and Sariçoban, A. (2021)	
Language Institute	Cordero-Martinez, (1995); Gerner de García (1995); Long, G., Vignare, K., Rappold, R. P., and Mallory, J. R. (2007); Hilzensauer (2010)	3
University	Fukuda, S. (2009); Ávila (2011); Palma and Steyer (2013); Chen (2018); Leis (2016); Smith (2016); Sedláčková, J., and Kontra, E. H. (2019); Domagała-Zyśk, E., and Podlewska, A. (2021)	5

Note. N=20

Table 3 presents the data of the different educational levels which were the focus of the articles analyzed. In this section, it appears to show a small number of articles conducted in primary schools (Bedoin, 2011; Domagała-Zyśk & Kontra, 2016; Rutkowski & Mostowski, 2020). On the other hand, high schools showed an increase of interest from researchers (Huang, 2011; Brokop & Persall, 2009; Smetana et al., 2009; Csizér & Kontra, 2020; Gülengül Birinci, F., & Sariçoban, A. 2021). The articles that focused on Language Institutes presented interesting data since the participants were not of the same age group but rather depending on their level of English of which three articles were analyzed (Cordero-Martinez, 1995; Gerner de García, 1995; Long et al., 2007: Hilzensauer, 2010). The final section was the University level of which eight articles were analyzed (Fukuda, S. 2009; Ávila 2011; Palma & Steyer 2013; Chen 2018; Leis 2016; Smith 2016; Sedláčková, J., & Kontra, E. H. 2019; Domagała-Zyśk, E., & Podlewska, A. 2021) which shows that researchers place more emphasis on participants with higher levels of

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education as opposed to younger D/HH students. It is important to mention that this lack of research in primary school is a gap.

Table 4 Methods

The table below shows the division of the articles by methods and the number of studies per method. It is important to mention that some articles focused on more than only one method of teaching EFL and ESL to deaf and hard of hearing students. The information in the table provides knowledge about which EFL and ESL methods are used most by the teachers in the articles and which methods are least used and will help to answer the first research question of this study: What teaching strategies have been reported as the most effective to teach a second or foreign language to deaf and hard of hearing students?

Methods used by Authors in the Studies

Authors	Methods	No. of Studies
Gerner de García (1995)	Whole Language Teaching	1
Huang (2011)	Multisensory Approach	1
Huang (2011)	Natural Approach	1
Hilzensauer (2010); Huang (2011); Chen (2018)	Grammar Translation Method	3
Fukuda, S. (2009); Bedoin (2011); Csizér and Kontra (2020)	Communicative Language Teaching	3

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Cordero-Martínez (1995)	Total Physical Response	1
Csizér and Kontra (2020)	Task Based Learning	1
Cordero-Martínez (1995); Rutkowski and Mostowski (2020)	Visual-Spatial Approach	2
Leis, A. (2016)	Computer Assisted Language Learning	1
Long, G., Vignare, K., Rappold, R. P., and Mallory, J. R. (2007); Brokop and Persall (2009); Smetana, L., Odelson, D., Burns, H., and Grisham, D. L. (2009); Ávila, O. (2011); Palma and Steyer (2013); Domagała-Zyśk and Kontra (2016); Smith, E. (2016); Sedláčková, J., and Kontra, E. H. (2019); Gülengül Birinci, F., and Sariçoban, A. (2021); Domagała-Zyśk, E., and Podlewska, A. (2021).	Mixed Methods	10

Note. N=20*Some studies reported more than one method in the same article*

Table 4 shows the methods used by teachers and researchers in the articles analyzed. The methods that were not used as frequently as others were Whole Language Teaching (Gerner de García, 1995), Multisensory Approach (Huang, 2011), Natural Approach (Huang, 2011), Total Physical Response (Cordero-Martínez, 1995), and Visual-Spatial Approach (Cordero-Martínez, 1995). The more frequently used methods were those of Communicative language teaching (Fukuda, S. 2009; Bedoin, 2011; Csizér & Kontra, 2020) and task based learning (Rutkowski &

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Mostowski, 2020; Csizér & Kontra, 2020). On the other hand, the most commonly used methods were the grammar translation method (Hilzensauer, 2010; Huang, 2011; Chen, 2018), and the section categorized as "Mixed method" since the authors from the articles described informal techniques which did not belong to any particular method and that were applied to develop D/HH students' skill. For example, some studies reported the use of intonation phrases, comic books, the use of different colors to divide the stages of the lesson, visuals such as photographs and other props or realia, in order to provide important explanations and essentially to improve reading skills and subskills (Leis, 2016; Smetana et al., 2009; Smith, E. 2016, Gülengül Birinci, F., and Sariçoban, A. 2021). Furthermore, authors from different studies decided to use online tools like discussion boards and face-to-face meetings outside the classroom in order to enhance students´ use of language and to give feedback among students (Ávila, 2011, Gülengül Birinci, and Sariçoban, 2021, Long et al., 2007, Sedláčková, and Kontra, 2019). Additionally, one study reported the benefits of incorporating techniques such as individualization, emotionalization, lexical analysis, multi-sensory memorization, structuralization, and experiential learning (Domagała-Zyśk, and Podlewska, 2021).

According to the data provided in the table, the most effective or widely used method is the Grammar Translation method. It is surprising to see since in many EFL classrooms this method is not the teachers first choice yet it is still used (Huang, 2011). Another important finding is the number of studies which used mixed methods with informal techniques. Furthermore, the information from the table is highly important since it can provide a step into demonstrating a gap in the type of methods used to teach EFL and ESL D/HH students and shows the difficulty that educators face when teaching D/HH students and how they resort to an older method of teaching EFL and ESL because of its convenience, and that they also have to

depend on combining various techniques from different methods in order to have better results from their EFL/ESL classes with D/HH students.

Table 5 Modified Methods

The following table organizes the information of the EFL and ESL methods that were modified by teachers or the authors of the studies in order to teach D/HH students. The information from the table is important for the purpose of this paper since it demonstrates that EFL and ESL methods are not used simply as they are, but rather they are modified to suit the students specific needs. It is important to mention that the articles by Long et al. (2007); Brokop and Persall (2009); Smetana, et al. (2009); Ávila, O. (2011); Smith, E. (2016); Sedláčková, J., and Kontra, E. H. (2019); Gülengül Birinci, and Sariçoban, (2021); Domagała-Zyśk, and Podlewska, (2021); all did not present any specific modifications which is why they are exempted from the mixed methods category in tables 5, 6, and 7.

Methods modified by Authors in the Studies

Authors	Methods	No. of Studies
Gerner de García (1995)	Whole Language Teaching	1
Huang (2011)	Multisensory Approach	1
Huang (2011)	Natural Approach	1
Hilzensauer (2010); Huang (2011); Chen (2018)	Grammar Translation Method	3
Bedoin (2011)	Communicative Language Teaching	1

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Cordero-Martínez (1995)	Total Physical Response	1
Cordero-Martínez (1995); Rutkowski and Mostowski (2020)	Visual-Spatial Approach	2
Palma and Steyer (2013); Domagała-Zyśk and Kontra (2016)	Mixed Methods	2

Note. N=9 * *8 articles from mixed methods and 1 from Computer Assisted Language Learning did not report any modifications in the method*

Table 5 shows the different EFL and ESL methods which were modified by either the author of the article or the teacher participants that were observed. The first method was whole language teaching and was modified by implementing techniques such as science experiments in order to teach vocabulary to D/HH students (Gerner de García, 1995). The second method modified was the multisensory approach which implemented techniques and materials and that used more of the students' vision by the use of role plays or visuals to teach vocabulary within the same class (Huang, 2011). The third modified method was the natural approach which the teacher from the study modified by emphasizing the lessons on the students' reality and immediate needs rather than other conventional or traditional topics (Huang, 2011). The fourth method that was modified was the grammar translation method in three different studies. The grammar translation method was reported to focus more on the vocabulary and spelling aspect of the language by implementing written explanations on the screen or developing online programs in which D/HH students can have SL explanations in their native languages (Hilzensauer, 2010; Huang, 2011; Chen, 2018). The fifth modified method by the teacher of one article was

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communicative language teaching in which the teacher emphasized lessons in writing and excluded spoken communication skills (Bedoin, 2011). The sixth method was total physical response and was modified by implementing activities that allowed students to use their sight and tactile senses (Cordero-Martínez, 1995). The seventh method was the visual-spatial approach, modified according to students' needs by including online textbooks with sign language explanations, and the use of classroom props (Cordero-Martínez, 1995; Rutkowski & Mostowski, 2020). The final section of mixed methods provided strategies to teach certain language skills like writing although no specific method was mentioned (Palma & Steyer, 2013; Domagała-Zyśk & Kontra, 2016).

The information provided in the table above demonstrates the need of teachers to modify traditional EFL and ESL methods in order to suit deaf and hard of hearing students' needs since many of the methods are oralist based which resulted in teachers addressing other skills such as writing and omitting the listening skill in their lessons. This information is of importance to the purpose of this paper since it presents a noticeable gap of a specific EFL and ESL method to teach students that are deaf and hard of hearing.

Table 6 Teachers' perceptions

The sixth table below shows the perceptions from teachers after applying the modified methods. The data analyzed from the articles and divided into the table below is important since it answers the first part of the second research question: What are the teachers' and D/HH students' perceptions towards the teaching strategies used in a class with deaf or hard of hearing students? To answer this, the table is divided into the methods used and what were the teachers' perception by defining it with the key words "Excellent" and "Convenient". On another note, the

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following articles did not report any perceptions from teachers' towards the application of modified methods; Hilzensauer (2010); Huang (2011); Chen (2018); Bedoin (2011); Cordero-Martínez (1995); Rutkowski and Mostowski (2020); Brokop and Persall (2009); Palma and Steyer (2013).

Teachers' Perceptions on Methods modified by Authors in the Studies

Authors	Methods	Perceptions	No. of Studies
Gerner de García (1995)	Whole Language Teaching	Excellent	1
Domagała-Zyśk and Kontra (2016)	Mixed Methods	Convenient	1

Note.N =2 *8 articles did not report on the teachers' perceptions*

Table six shows the information regarding the perceptions of teachers per method. The first perception was related to the whole language teaching and was considered to be "excellent" in the study by Gerner de García (1995). The reason for this perception from the author who was also the teacher is due to the way the method was modified and then applied to her D/HH students who then presented positive results during and after the study (Gerner de García, 1995). The author applied interesting strategies in order to teach ESL to D/HH students. One particular modification was that of teaching English by implementing other subjects such as literature through reading a book written in English but that was related to the students' Latin ascendance which caused them to present a genuine interest in the class. The other technique was to implement simple science projects like growing a vegetable at home and a small field trip like visiting a supermarket nearby to do grocery shopping with the vocabulary words learned (Gerner

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de García, 1995). All of these techniques which were applied to modify the base method resulted in an improved acquisition of English by her D/HH students with which the author felt deeply satisfied.

The second section which was analyzed and defined as "convenient" was that of specific strategies by skill. In this study as seen in the table above, the methods used were not specified by the authors of the research who rather decided to focus on the specific strategies or tasks that could be applied by a certain skill with D/HH students who then provided their opinions and perceptions towards said strategies (Domagała-Zyśk & Kontra, 2016). In the research by Domagała-Zyśk and Kontra (2016), the methods used by teachers weren't stated but rather mentioned that they were all modified by the teachers in order to target a specific skill whichever the teachers deemed as necessary. At the end of the study, Domagała-Zyśk and Kontra (2016) reported that teachers felt more satisfied with the convenient modifications they applied to the common EFL and ESL strategies. The results from this table clearly state that there exists a gap of information regarding the perceptions of teachers and the answer to the second research question is that teachers find the modified methods as excellent and convenient ways to teach D/HH students.

Table 7 D/HH Students' perceptions

In table seven, the data analyzed shows the perceptions of deaf and hard of hearing students towards the methods that were modified and applied. This information answers the second part of the second research question: What are the teachers' and D/HH students' perceptions towards the teaching strategies used in a class with deaf or hard of hearing students? In order to answer this question, table seven presents the perceptions of the students per method

and the perception is defined with the key words "practical" and "excellent". In addition, the articles by Gerner de García, (1995); Hilzensauer (2010); Huang (2011); Bedoin (2011); Cordero-Martínez (1995); Rutkowski and Mostowski (2020); Palma and Steyer (2013); Domagała-Zyśk and Kontra (2016); did not report any perceptions from D/HH students.

D/HH Students' Perceptions on Methods modified by Authors in the Studies

Authors	Methods	Perceptions	No. of Studies
Chen (2018)	Grammar Translation Method	Practical	1
Csizér and Kontra (2020)	Communicative Language Teaching	Excellent	1
Csizér and Kontra (2020)	Task Based Learning	Excellent	1

Note. N=2 *9 *articles did not report on the D/HH students' perceptions*

Table seven shows the perceptions of deaf and hard of hearing students who received classes from EFL and ESL teachers who modified the methods stated above. The first method was that of grammar translation (Chen, 2018). Deaf and hard of hearing students reported in the article that they were not satisfied with the application of this method even though they stated that they understood why it was applied by their teachers (Chen, 2018). The grammar translation method proved to be practical for the teachers to apply with minor modifications such as writing down explanations and having students read the lesson in both English and their L1 (Chen, 2018). The following methods and their respective perceptions from deaf and hard of hearing students are the study by Csizér and Kontra (2020). In the article, the first method is the

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communicative language teaching in which deaf and hard of hearing students reported that they preferred to receive classes with this method since they were able to work with their classmates and communicate as they felt more comfortable and secure (Czisér & Kontra, 2020).

On the other hand, the second method reported by Czisér and Kontra (2020) was task based learning. Deaf and hard of hearing students stated in this study that they preferred this method since they were able to work individually which allowed them to develop tasks at their own pace (Czisér & Kontra, 2020). Furthermore, D/HH students stated that they would prefer task based learning activities since they had the opportunity to find motivation in their own time by developing their activities by watching videos with subtitles or using apps focused on learning English (Czisér & Kontra, 2020). The results from table seven and the data analyzed show that there is not enough emphasis in studies focusing on the perceptions of D/HH students when taught EFL and ESL which is a gap that should be taken into consideration for further studies. Furthermore, the results from the data analyzed also answers the second part of the second research question with the statement that D/HH students find modified methods as excellent and practical ways of learning EFL and ESL.

In short, the results of teachers' and D/HH students' perceptions from table six and seven both demonstrate that there is a huge gap in studies in this area. It appears that most research conducted are only focused on methods but exclude the way that the educational actors involved in the classroom feel towards EFL and ESL methods and the overall learning experience. From the twenty articles analyzed, only three included a section for teachers' perceptions and two for D/HH students' perceptions. This section answers the second research question with the statement that most teachers and D/HH students at first feel uneasy with normal methods, but in

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turn show positive reactions towards methods which are modified and have a positive effect on D/HH students. Furthermore, the data also shows that there is a noticeable gap in research which calls for further studies in this area.

CHAPTER VI

Conclusions

Indeed, it is important to conclude that D/HH students have improved in several characteristics regarding EFL and ESL with the modified methods presented in this research synthesis, and it is worth mentioning that the Communicative Language Teaching, Task Based Learning, and the Grammar Translation method with their modified features were the most used according to D/HH necessities. These approaches worked accurately with D/HH students in several studies because instructors decided to use this method to fit with students' requirements to learn the features of an EFL and ESL classroom.

On the other hand, the least used methods were Whole Language Teaching, Multisensory Approach, Natural Approach, TPR, and Visual-Spatial Approach. Moreover, teachers' perceptions towards the modified methods where most of the teachers considered applying the approaches with an effective outcome and result by relating them with other fields of knowledge such as literature as well as matching them with a specific skill in order to improve students' development. Regarding deaf and hard of hearing students' perceptions it is important to state that even though they did not feel completely satisfied with the use of the Grammar Translation method, they understood that the method is the most important for them to increase their language abilities since it showed a practical development of the classes. Additionally, students

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stated that the Communicative Language Teaching made them feel comfortable because of group works in this approach. Even though students reported a great increase in their motivation, engagement, and inspiration in the present articles revised.

Recommendations

As stated previously in the document, it would be interesting to develop more research concerning D/HH students' perceptions and teachers' perceptions related to the methods used in different parts of the world, but more precisely in South America because, in this continent, there is almost nule information according to the topic. Finally, a comparative study between students' and teachers' perceptions is also recommended in order to increase and improve the development of classes for deaf and hard of hearing students. Moreover, it is also important to develop further research not only for primary school learners but also for Ecuadorian D/HH students because our context is also important to improve D/HH students' learning experiences.

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