

National and Kapodistrian University of Athens  
Department of Philology  
Department of English Language and Literature  
Department of Russian Language and Literature and Slavic Studies

Interdepartmental MA Programme  
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**Hans Christian Andersen’s  
'The Little Mermaid' into Greek  
for Children with Intellectual Disabilities**



Eleni Piperidou  
7563132200004

Supervisors  
Prof. Maria Sidiropoulou  
Prof. Tatiana Borisova  
Prof. Dionysios Goutsos

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## Declaration page

### Declaration

This submission is my own work. Any quotation from, or description of, work of others is acknowledged herein by reference to the sources, whether published or unpublished.

Name

Eleni Piperidou

Signature

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## **Abstract**

This dissertation delves for adapting literature material to address children with High-Functioning Autism (HFA hereafter). It renegotiates discourse by applying the Easy-to-Read (EtR hereafter) approach. Hans Christian Andersen's classic tale, "The Little Mermaid," is tailored to optimize comprehension and engagement for HFA children. Key theoretical foundations include insights from scholars such as Baron-Cohen (2009), highlighting the paramount role of visual learning and the need for personalized communication strategies in the context of autism. The adaptation process encompasses simplification of sentence structures and strategic integration of pictographs, i.e. visual representation of information using symbols or pictures. Simplifying complex expressions and providing visual cues are assumed to appeal to the distinctive cognitive preferences of HFA individuals. Furthermore, this dissertation meticulously chronicles the practical implementation of the adapted material, in collaboration with a special educator, offering a detailed account of observations and invaluable feedback garnered from sessions with HFA children. The success of the intervention is analysed within the realm of cognitive accessibility, emphasizing the profound impact of tailoring literature content to suit the diverse learning needs of the HFA readers.

## **Greek Abstract**

Η Διπλωματική Εργασία εξετάζει την προσαρμογή λογοτεχνικού υλικού που απευθύνεται σε παιδιά με Αυτισμό Υψηλής Λειτουργικότητας. Επαναδιαπραγματεύεται το λόγο εφαρμόζοντας την μέθοδο της μεταγραφής «κείμενο-για-όλους» (Easy-to-Read, εφεξής EtR). Προσαρμόζει το κλασικό παραμύθι του Χανς Κρίστιαν Άντερσεν, «Η Μικρή Γοργόνα», ώστε να βελτιστοποιήσει την κατανόηση και την δραστηριοποίηση των παιδιών με αυτισμό υψηλής λειτουργικότητας. Τα βασικά θεωρητικά θεμέλια περιλαμβάνουν μελέτες, όπως του Baron-Cohen (2009), που τονίζουν τον πρωταρχικό ρόλο της οπτικής μάθησης και την ανάγκη για εξατομικευμένες στρατηγικές επικοινωνίας στα πλαίσια του αυτισμού. Η διαδικασία της προσαρμογής περιλαμβάνει την απλοποίηση των δομών των προτάσεων και την ενσωμάτωση εικονογραφημάτων, δηλαδή την οπτική αναπαράσταση των πληροφοριών με τη χρήση συμβόλων ή εικόνων.

Η απλούστευση πολύπλοκων εκφράσεων και η ενσωμάτωση οπτικού υλικού απευθύνονται στις ιδιαίτερες γνωστικές προτιμήσεις των ατόμων με αυτισμό υψηλής λειτουργικότητας. Επιπλέον, η παρούσα διπλωματική καταγράφει την πρακτική εφαρμογή του προσαρμοσμένου υλικού, σε συνεργασία με έναν ειδικό παιδαγωγό, που προσέφερε λεπτομερή περιγραφή των παρατηρήσεων και των πολύτιμων ανατροφοδοτήσεων που συγκεντρώθηκαν από τις συναντήσεις με τους μαθητές.

Η επιτυχία της παρέμβασης αναλύεται στο πλαίσιο της γνωστικής προσβασιμότητας, που υπογραμμίζει τη σημαντική επίδραση της μεταγραφής του παραμυθιού ώστε να ανταποκρίνεται στις διαφορετικές μαθησιακές ανάγκες των αναγνωστών με αυτισμό υψηλής λειτουργικότητας.

## **Abbreviations:**

AI	Artificial Intelligence
ASD	Autism Spectrum Disorder
EtR	Easy To Read
HFA	High Functioning Autism
IFLA	International Federation of Library Association and Institutions
ΚΕ.Δ.Α.Σ.Υ	Κέντρα Διεπιστημονικής Αξιολόγησης, Συμβουλευτικής & Υποστήριξης.
LFA	Low Functioning Autism
ZPD	Zone of Proximal Development

## **1 Introduction: Accessibility in reading material**

Access to education is one of the fundamental human rights according to the universal declaration of human rights<sup>1</sup> and being able to read and stay informed is regarded as a prerequisite for citizen equality in democratic societies. While significant progress has been noted in promoting literacy worldwide, a segment of the population, more specifically, individuals with intellectual disabilities<sup>2</sup> are denied the transformative power that education can offer, since educational materials are not presented in an accessible format and often pose significant communication barriers. To address this issue, it is important that educational institutions prioritize the creation of accessible easy-to-read materials. As part of this initiative, the Easy-to-Read (EtR) method of publication has caught the public eye for its ability to break down information barriers in education, particularly for individuals facing challenges, such as those with intellectual disabilities.

EtR simplifies written text and makes it more accessible to individuals with reading difficulties, by using basic and commonly understood vocabulary, clear and concise language, and grammar instead of complex or uncommon words. Visual support and multimodal adaptation, such as images or illustrations, is included in order to provide additional information and aid understanding. The context is structured logically, with a clear beginning, middle, and end, helping readers follow the narrative and understand the important points which are organized in a straightforward manner. Considering that EtR promotes ease of understanding it could be particularly valuable for children with high-functioning autism (HFA) who may benefit from the simplified and comprehensibly written text, the visual aids and the logical context organization.

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<sup>1</sup> <https://www.un.org/en/about-us/universal-declaration-of-human-rights>

<sup>2</sup> Definition from Oxford languages: a disability that affects the acquisition of knowledge and skills, in particular any of various neurodevelopmental conditions affecting intellectual processes, educational attainment, and the acquisition of skills needed for independent living and social functioning.



## **1.1 Autism as a disability**

High-Functioning Autism (HFA) in children is manifested through milder symptoms comparing to Low-Functioning Autism (LFA), because children have an average or above average intelligence. While they usually develop language and communication skills, they may struggle with pragmatic language use and understanding abstract or figurative language which may be encountered in children's literature. Literature is a valuable resource for the linguistic development of autistic children from an early age and it can also be used as a powerful educational tool. Considering that the vast majority of the Greek classical literature books is not written in an easy-to-read language and does not provide appropriate visual aids that can make reading a more comprehensible experience for this target group, Greek children with HFA lack the privilege of acquiring the same educational experience as the rest of the world. In other words, their human right to education is at stake since they do not have equal access to educational and cultural resources that are vital to their own growth and development.

The aim of this study is to introduce an alternative storytelling and story-reading method and reflect on the use of the EtR approach in the classroom, in terms of readability and linguistic complexity and how this method can assist HFA children.

## **1.2 Easy-to-read process as translation**

The principles of the EtR method align with some key aspects of the translation process. Jakobson (1959) laid the groundwork for understanding translation across different sign systems by introducing the broader concept of translation. In his essay "On Linguistic Aspects of Translation" (1959), Jakobson outlined various types of translation where he discussed the transfer of meaning between different types of signs. More specifically, he identified three types of translation and referred to them as

- *intralingual translation or rewording*, which involved rephrasing or paraphrasing within the same language,

- *interlingual translation or translation proper* which was conducted between two languages and involved the interpretation of verbal signs by the use of a different language and
- *intersemiotic translation or transmutation* which was an interpretation of verbal signs by the use of signs of nonverbal sign systems. Verbal signs refer to linguistic elements, such as words and language while nonverbal sign systems enclose various modes of communication that do not rely on language, such as visual symbols, images, music, or other forms of non-linguistic representation.

Incorporating pictographs<sup>3</sup> and adapting Andersen's tale by employing the EtR method for children with HFA (High Functioning Autism) could be considered as a form of intersemiotic translation since the aim is to translate information from a linguistic system (text) into a visual system (pictographs). The EtR method involves simplifying language and incorporating visual elements. This coincides with Jakobson's interpretation of building a bridge between different sign systems. By combining text and pictographs, the language is not only simplified but also transformed into a different semiotic mode. In this case, the adaptation represents a translation not only within the linguistic system, but it also creates a more accessible format which is aligned with the principles of intersemiotic translation.

Reiss and Vermeer (1984) support that translation should fulfill a purpose, "skopos" (σκοπός in Greek), for which it is intended. Researchers imply that the translator's task is not merely to replicate the form of the source text but to ensure that the translated text effectively serves its designated purpose. Translators are urged to adapt their approach to meet the requirements of the intended function. This also aligns with the principles of adapting communication to meet the needs of a target group, in this case the individuals with HFA, who may benefit from a multimodal approach. In the context of this adaptation for the children with HFA, fulfilling the *skopos* guides linguistic decisions, ensuring that the translation aligns

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<sup>3</sup> According to the Oxford English Dictionary, a pictograph is a pictorial symbol for a word or phrase. It is a visual representation of information using symbols or pictures. Pictographs are commonly used for communication and data visualization, conveying meaning through easily recognizable images or icons.

with its intended purpose, i.e. to meet the cognitive needs of children with intellectual disabilities.

Eco (2001) suggests that intersemiotic translation is inherently a form of adaptation involving a transformation of the source text, revealing elements and presenting them in a different medium, such as images, and explains that it can lead to a more explicit presentation compared to the original text, which may have elements that are more open to interpretation. In adapting “The Little Mermaid” for HFA children, the process includes simplifying language, incorporating visual elements, and making adjustments to enhance accessibility.

### **1.3 Aims and goals**

Special educators were asked to read an adapted translation of the fable “The Little Mermaid” by Hans Christian Andersen to a group of HFA children. The aim was to examine how the adapted version catered for the specific needs of children with HFA compared to existing translations of the original tale. Accessibility features, such as visual aids, simple language and stylistic choices were taken into consideration. The special educators were asked to evaluate the impact of the adaptation and whether it was aligned with the educational needs and objectives of the children with intellectual disabilities compared to existing translations.

The general objective of the study is to explore the differences in the readability and complexity between (a) the adapted version of “The Little Mermaid” using the EtR method and (b) the ‘original’ translated text in Greek. It aims to examine whether and how the variation between them can improve comprehension and engagement among children with HFA.

An experiment will be conducted with a special educator who will read the adapted version of the tale in order to evaluate how effectively the adapted text promotes inclusivity and accessibility for the HFA children and how it impacts the overall reading and comprehension experience. The research assesses the degree to which the adapted version and the linguistic and stylistic choices align with the educational needs and goals of the special educator of the HFA children; it also investigates how the adaptation supports their cognitive and linguistic development.

The challenges and barriers encountered in the adaptation of classic literature for children with intellectual disabilities will be explored along with the research aims to provide insights into how these challenges can be addressed to enhance the reading experience for this specific group.

## 2 Literature Review

The chapter defines the autism spectrum disorder (ASD) as proposed by the United States Department of Health and Human Services, Centers for Disease Control and Prevention. Accordingly, it discusses the definition of accessibility, the criteria for readability and the examination of the role of visual supports and multimodal adaptation as the key elements which are crucial for making classic literature accessible for HFA children.

### 2.1 Definition of Autism

To this date, there are controversies with regards to the different terminology and definitions used to refer to the autism spectrum disorder (ASD) and the functioning labels of categorization among the individuals. The binary distinction between the terms *high-functioning* and *low-functioning autism* has been criticized of being unable to accurately describe the wide range of the autism spectrum since it oversimplifies it. As reported by Bal et. al. (2017), the degree of impairment used to categorize as *low* or *high* functioning is frequently unclear because the terms are failing to identify a broader range of the abilities the individuals may possess. In other words, the terms are used casually to describe the most common characteristics of a group of people without recognizing the wide range of abilities that individuals in that group may actually have. Moreover, the classification of an individual as *low-functioning* might hide their inherent strengths, like having average cognitive abilities even if they are minimally verbal or non-verbal (Bal, Katz, Bishop & Krasileva 2016). On the other hand, labelling individuals as *high-functioning* might not fully recognize their difficulties, in daily living skills and the support they might need (Kenworthy, Case, Harms, Martin & Wallace 2010). The inconsistent and unclear definitions of these groups make it challenging to compare studies on individuals labelled as “low-functioning” or “high-functioning.”

Karimi et. al. (2017) report that autism is a pathogenesis that emerges from both genetic (mutations, e.g., heritability and twins) and environmental factors

(physical, mental, and psychological health as well as the financial state throughout the pregnancy). Researchers mention that there are prenatal, natal, and postnatal risk factors that can possibly influence autism. Some of the factors which can influence autism are (1) parental age, (2) maternal physical and mental health, (3) maternal prenatal medication use, (4) familial socioeconomic status.

The United States Department of Health and Human Services, Centers for Disease Control and Prevention (Department of Health, 2006) suggests that ASD is characterized by unique patterns in socialization, communication, and behavior affecting various aspects of the individuals' lives:

Autism spectrum disorders (ASDs) are a group of developmental disabilities characterized by atypical development in socialization, communication, and behavior. ASDs typically are apparent before age 3 years, with associated impairments affecting multiple areas of a person's life. Because no biologic marker exists for ASDs, identification is made by professionals who evaluate a child's developmental progress to identify the presence of developmental disorders.

Understanding the wide range of differences among ASDs is particularly important when examining specific skills such as reading abilities in order to confirm that there is no uniformity in how those individuals approach and develop reading abilities. This fact underscores the necessity for tailored interventions and support that address the unique strengths and challenges presented by individuals with ASD in specific skill domains, like reading.

## **2.2 Accessibility**

Accessibility in reading involves more than just a linguistic adaptation of a written text in plain language. Multimodal adaptations may cater for the diverse needs of children with ASD optimizing the overall learning experience. Tailored reading teaching strategies provided by special educators that align with the needs of individuals within the autism spectrum are also considered crucial.

Creating accessible information for people with intellectual disabilities, especially through EtR resources, has been a priority for the past two decades. Despite the availability of resources and guidelines for the creation of accessible materials,

little is known about their effectiveness. The significance of developing better tools for assessing how people with ASD approach reading is essential. The study of Sutherland & Isherwood (2016) on accessible information through EtR resources for people with intellectual disabilities showed that adding illustrations to written text was controversial. It was only beneficial when the readers were familiar with the provided visual elements. In other words, multimodal approaches, such as combining text with visual elements to enhance comprehension for individuals with intellectual disabilities should be tailored in accordance with the needs of the target group in order to avoid confusion and misinterpretations. In their comparison of 27 studies involving 1.490 individuals, Fernandes et. al. (2016) suggest that the literacy acquisition of individuals with ASD requires further assessment due to the vast variation within the autism spectrum. Researchers suggest that studies which focused more on making reading more understandable worked better than methods that only helped with reading individual words. Researchers also underline the importance of further investigation into how individuals with ASD learn to read.

The EtR method works as a linguistic bridge, which simplifies complicated language structures in an attempt to foster comprehension among individuals with intellectual disabilities. Its significance lies in that linguistic adaptations involve a careful balance between maintaining the essence of the original text and an optimization of a language to enhance comprehension results. According to IFLA (International Federation of Library Association and Institutions), through reading, individuals not only gain access to a vast array of knowledge but also experience personal growth:

Being able to read gives a person a tremendous amount of self-confidence, by enabling him/her to expand his/her view of the world and take control of his/her own life. Through reading people are able to share ideas, thoughts and experiences, and to grow as human beings.

Fajardo et. al. (2014) tested the effectiveness of EtR materials for individuals with mild intellectual disabilities and the relationship between reading comprehension and various linguistic features. The study showed an 80% accuracy rate in comprehending the EtR texts, with notably higher scores in literal comprehension compared to inferential comprehension. This finding suggested that increased

sentence density lowered the participants' ability to establish relationships between ideas and other linguistic variables, such as word frequency and length. Additionally, comprehension was found to be negligible. The structural adjustments involve short and clear organization which contribute to a more digestible reading experience. Furthermore, the integration of visual elements, such as photographs or pictographs, aligns with the EtR approach since it functions as a supplement to the text which reinforces a better understanding when used by individuals with intellectual disabilities.

This study aims to illuminate the impact of such linguistic and structural choices on readability and overall accessibility, through a comparative analysis of Andersen's tale (translated into Greek) and an adaptation of it which employs the EtR method. This study also aims to contribute to the broader discussion about making literature an inclusive and accessible experience for children with intellectual disabilities. It also holds broader implications for future efforts in creating accessible literature tailored to the unique needs of children with HFA.

### **2.3 Multimodality**

Building upon the investigation into linguistic and structural choices and their effects on readability and accessibility, the section aims to explore how incorporating visual and interactive elements contributes to literature accessibility, particularly for children with HFA. Halliday's (1978) semiotic theory of communication has been influential in understanding the role of semiotic resources and their social functions in communication. His theory suggests that communication involves more than just language – it encompasses a range of semiotic resources, including language, images, and other modes of expression. This emphasizes the importance of considering the social and situational context in which communication occurs since the same symbol or sign can convey different meanings depending on the context in which it is employed. The simplified language and the strategic use of visual supports in the EtR adaptation of "The Little Mermaid" seeks to foster engagement within its context of use, aligning with the social and educational goals with reference to HFA readers.



Expanding Halliday's (1978) semiotic theory of communication, Kress & van Leeuwen (2006) adopt an inclusive approach which acknowledges that communication involves various modes beyond language. The researchers insisted on giving equal attention to all semiotic modes. They applied the principles of social semiotics to analyse the "grammar" of visual design, acknowledging that images, colours, layout, and other visual elements carry meaning. By developing a systematic framework for analyzing the visual grammar of images, Kress & van Leeuwen (2006) explored how visual elements are organized and how meaning is constructed through the arrangement, size, color, and other features of images. This systematic analysis allowed them to identify patterns and conventions in the visual representation of meaning. In the adaptation of Andersen's tale using the EtR method for the HFA children, the use of pictographs represents an extension of semiotic resources beyond verbal language. Pictographs, as mentioned, serve as visual elements contributing to the overall meaning of the adapted text. Incorporating pictographs into the adaptation assumes an equal consideration of visual elements, as Kress & van Leeuwen (2006) advocated.

Pictographs become integral components with their own *grammar* and contribute meaning together with the adapted verbal text. The choice of pictographs, their arrangement, and their interaction with the verbal text were systematically employed in the adaptation and in accordance with Kress & van Leeuwen's (2006) systematic analysis which aimed at making the reading experience accessible for the target audience, namely, the children with HFA. The use of the pictographs and the adapted text contributed to the narrative and served as a visual cue, emphasizing key elements of the narrative. This was in alignment with Kress & van Leeuwen's (2006) idea that the arrangement and composition of visual elements impact the meaning. The pictographs above the text can draw attention to specific actions, emotions, or characters, providing emphasis and highlighting crucial aspects of the story. The pictographs utilized in this study were found from the website Freepik<sup>4</sup>, which is known for its extensive collection of high-quality graphic resources. Freepik offers vector images, illustrations, icons, and photos and is recognized for its user-friendly interface and creative content. The website allows its users to access a library of free resources which are visually engaging

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<sup>4</sup> <https://www.freepik.com>

and professionally crafted, enhancing the overall quality and visual appeal of the adapted materials for HFA children.

In alignment with multimodal principles, the pictographic representation of the little mermaid was approached with consideration. When the adapted text indicated moments of stillness for the little mermaid (Figure 1) or when she was mentioned within the text, the corresponding pictograph deliberately portrayed her in a serene pose. Conversely, when the narrative implied dynamic actions such as swimming towards a specific destination as seen on Figure 1, the pictograph was selected to depict the little mermaid in an animated swimming pose, heading in the direction mentioned in the text. This consistent and dynamic visual representation not only adheres to the principles of visual grammar but is also expected to reinforce comprehension on the part of the HFA readers.



*Figure 1 Different pictographic representations of the Little Mermaid*

Kress & van Leeuwen (2006) also discuss how the representation of subjects can vary based on the perspective of the message. Different perspectives can convey different meanings or emotions. In the adaptation of the tale, the varying depiction of the prince based on the narrative context aligns with their emphasis on considering the point of view from which visual elements are presented (Figure 2). For instance, when the prince is seen from the little mermaid's perspective in a joyful moment, the pictograph depicts his happy expression. On the other hand, when the narrative involves a moment where the prince is sinking in the sea, the perspective shifts impacting the representation of the prince. A different framing technique is employed in order to convey awareness of danger and evoke relevant emotional responses from the readers.



*Figure 2 Different pictographic representations of the prince*

Kress & van Leeuwen (2006) discuss the importance of symbolism and representation in visual communication and argue that visual elements often function as symbols and represent concepts beyond their visual appearance. One of the pictographs used in the adaptation of Andersen's tale, depicts a princess and a prince in front of a castle which can be interpreted as a symbolic visual element. More specifically, the little mermaid had a conversation with a witch in order to express her feeling towards the prince and ask the witch to give her legs. The pictograph of a princess and a prince in front of a castle serves as a form of representation, visually conveying the essence of the little mermaid's desire to live with the prince. This aligns with the researchers' idea that visual grammar involves representing meaning through visual choices. This deliberate visual choice contributes to the narrative meaning because it serves as a visual aid for the narrative content, allowing readers to quickly grasp the essence of the conversation and the little mermaid's aspirations. The choice of these symbols carries cultural associations related to romance, royalty, and fairy tales, enhancing the viewers' better understanding of the narrative. Kress & van Leeuwen (2006) argue that the arrangement and design of visual elements contribute to the overall meaning of a multimodal text.

In Kress & van Leeuwen's (2006) theory of interplay between verbal and visual elements, they emphasize the importance of examining how different modes work together to create meaning in a multimodal text. Their theory considers how the interaction between verbal and visual components contributes to the overall communication strategy and mentions that emotions can be conveyed not only through verbal text but also through visual choices. In the adaptation of the tale, a

sad emoticon<sup>5</sup> was employed to express the mermaid's feelings of sadness as she eagerly awaited her fifteenth birthday, symbolizing her longing to explore the surface of the sea. This visual element was intentionally incorporated into the text to evoke a deeper emotional connection with the character's experiences. Furthermore, a love emoticon was thoughtfully integrated when the princess articulated her affection for the prince. This visual marker served to reinforce the verbal expression of love, contributing to a richer portrayal of the character's emotions. The deliberate use of emoticons in these instances aimed to create a multimodal narrative that goes beyond mere text, engaging HFA readers on both visual and emotional levels.

In the course of this project, the images were initially generated using the AI tool Midjourney<sup>6</sup>. However, after careful consideration, it was deemed necessary to exclude these images from the final adaptation (see Appendix 1). The generated images exhibited a level of complexity and conveyed a particular perspective that, upon evaluation, was deemed unsuitable for the intended purpose of this work. Instead, a deliberate choice was made to rely on pictographs, as discussed earlier, to enhance accessibility and facilitate understanding for the HFA children. The decision to omit the AI-generated images was driven by the commitment to create a visual accompaniment that aligns with the adapted text, ensuring that both elements collectively contribute to a meaningful and inclusive reading experience for the target audience. Additionally, I opted to utilize pictographs in the adaptation process which were in alignment with the existing teaching methods employed by the teacher in their curriculum. This decision was made to ensure consistency and familiarity for the HFA children, as they were already accustomed to learning through pictographic representations.

## **2.4 The Greek learning environment**

The Greek educational support system for individuals with autism, including those with HFA, generally falls under the broader framework of 'special education'.

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<sup>5</sup> An emoticon is a representation of a facial expression using characters, typically punctuation marks, letters, and numbers, to convey the writer's emotions or sentiments in written communication. Emoticons are commonly employed in digital and online contexts to express mood, tone, or reactions.

<sup>6</sup> <https://www.midjourney.com/home?callbackUrl=%2Fexplore>

Special education in Greece aims to cater to the diverse needs of students with disabilities and support their learning. Students with autism, including those with HFA, may attend special education schools that are equipped to provide tailored support with specialized staff, including special education teachers, speech therapists, and psychologists. In recent years, there has been a push towards inclusive education, and Greece has been working on incorporating inclusive practices in schools. Depending on the severity of the child's condition, some students with HFA may be included in mainstream classrooms with additional support, such as a shadow-teacher. Shadow-teachers provide learners with individualized education plans that designed to address the unique needs of each student. Based on the HFA learner's needs, therapeutic interventions such as speech therapy, occupational therapy, and behavioral therapy are usually integrated into their educational programs.

Lappa et. al. (2018) conducted a study to explore the perspectives of parents of children with ASD regarding the structure and functioning of special support classes in the Greek educational system. The parents assessed their children's attendance in mainstream classes and their interactions with the special educators positively. However, they expressed negative evaluations of the hiring practices of special educators and about their children's educational framework provided by the Centre for Differential Diagnosis, Diagnosis and Support (Κέντρα Εκπαιδευτικής και Συμβουλευτικής Υποστήριξης former KEDDY, nowadays called Κέντρα Διεπιστημονικής Αξιολόγησης, Συμβουλευτικής & Υποστήριξης ΚΕ.Δ.Α.Σ.Υ).

In the Greek educational context, attitudes toward inclusion among general and special educators vary from neutral to positive, as indicated by Avramidis and Kalyva (2007), Batsiou et.al. (2008) and Padeliadou & Lampropoulou (1997).

There is a noticeable gap between the principles outlined in educational policies related to inclusion and how these principles are put into action within the school environment. While inclusion may be emphasized, the reality differs and Zoniou-Sideri & Vlachou (2006) suggest that research and observations have identified this discrepancy in the Greek educational context. The actual implementation in schools faces challenges, potentially due to various factors such as resource

constraints and institutional barriers. The concerns expressed by Greek educators, include time constraints, perceived lack of specialized knowledge, high curriculum demands, and potential impact on the academic progress of non-disabled students. These concerns underscore the complex landscape that hinders a widespread adoption of inclusive practices (Agaliotis 2002). The need for improvement is obvious and effective implementation of inclusive education for children with ASD in Greece should be further pursued.

### 3 Methodology

The study conducted the linguistic adaptation of Anderson's tale "The Little Mermaid" in compliance with the second edition of the *Guidelines for easy-to-read materials* by IFLA (International Federation of Library Association and Institutions) which was provided as service of the library for people with special needs. Additionally, the guidelines provided by "Make it Easy: A guide to preparing Easy to Read Information" were taken under consideration through the designing process. One of the primary goals of easy-to-read publications according to the institutions is to identify the main target group of people with reading disabilities and to offer suggestions to publishers.

Some broad guidelines that were taken under consideration during the rendering of the linguistic adaptation are listed as follows: (1) avoid abstract language, (2) use logical chronological order, (3) avoid mentioning involvement of irrelevant characters, (4) avoid metaphors and symbolic language, (5) include a single action within one sentence, (6) adjust vocabulary and explain illustrations.

The target group of this study is a small group consisting of four children with HFA attending a special school for autism, in Greece. Children with HFA are regarded as individuals with a permanent need for easy-to-read products due to the fact that autism is a cognitive and intellectual disorder. The children were working with a special educator.

Choosing "The Little Mermaid" by Hans Christian Andersen as the tale of my reading adaptation involves several logical and thoughtful reasoning. The tale's symbolic elements offer a challenge for adaptation and require a careful examination of language, imagery, and cultural context to effectively convey these images and language elements for children with intellectual disabilities. Given that individuals with autism often interpret things very literally, adapting a story which is fantasy-driven is a creative and challenging endeavor. Furthermore, the choice aligns with the goal of inclusivity in children's literature, by making it accessible to a diverse audience. The aim of the adaptation is to explore how storytelling can be tailored so that it meets the specific needs of this audience and contributes to

the broader discussion on inclusive education and literature. Moreover, there is a cross-cultural dimension while adapting a translated tale into Greek. This linguistic adaptation considers cultural nuances, linguistic variation, and the impact of translation choices on the overall accessibility and appeal of the story to Greek-speaking children with intellectual disabilities.

### **3.1 The subjects**

Four participants, three males and one female were selected to participate in this study. In order to be eligible for the study, the students at the special school for autism had to have been:

- (1) children with Greek as a native language
- (2) officially diagnosed with High-Functioning Autism (HFA),
- (3) facing difficulties in reading

The participants of the current study were officially diagnosed with HFA since they were attending a special school for autism. The participants in this study constituted a diverse group in terms of age, ranging from 10 to 13 years. Despite the age variance, a notable commonality was obvious in their developmental cognition and understanding and this is why they were placed in the same classroom and have been working as a “team” from the beginning of the current academic year. This homogeneity was a key consideration in ensuring that the adaptation catered to a shared cognitive framework, enhancing its applicability across different age within the HFA spectrum.

Furthermore, the participants came from varied backgrounds, reflecting the diversity inherent in their educational journeys. Two of the children had transitioned from attending a public school to the special school for autism. The transition was accompanied by the development of specific obsessions and psychological challenges, adding a layer of complexity to their individual experiences. The transition from a public school to a special school for autism has brought changes in the learning environments and teaching approaches. More precisely, two of the participating children exhibited a unique linguistic pattern, i.e. they were adept at parroting numerous words without a clear understanding of



their meanings. This phenomenon had its roots in their previous educational setting and it highlighted a potential gap in their language comprehension. Recognizing the importance of bridging this gap and fostering a deeper understanding of vocabulary, the special educator implemented a holistic approach to learning through pictographs for all HFA children of the class. Learning through pictographs served as a transformative strategy to assign meaning to words and concepts. For these two children, who previously relied on rote memorization, the visual cues (provided by the teacher's representations through pictographs) became instrumental in linking words to their corresponding meanings. This shift not only enhanced their vocabulary comprehension but also contributed to a more profound engagement with the adapted material.

Understanding these changes was crucial for the suggested adaptation to suit the varied learning styles of the participants. Children who have undergone transitions between different educational settings have unique needs and sensitivities. Understanding these unique backgrounds was essential for tailoring the adaptation to address the specific needs and challenges arising from their diverse educational histories.

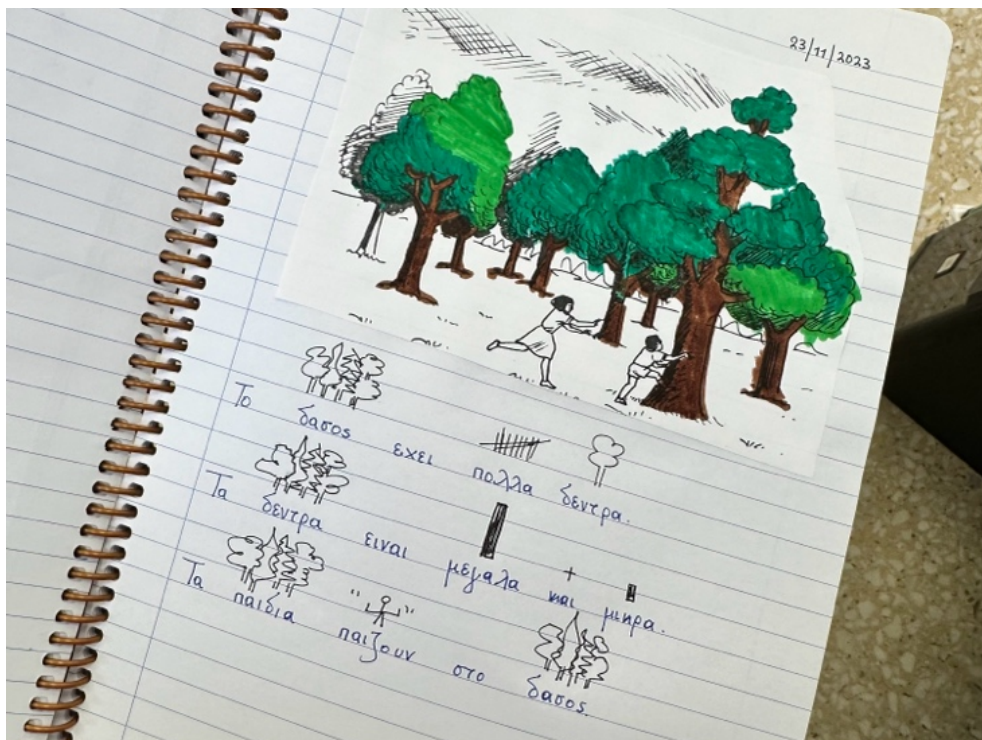


Figure 3 Teacher using pictographs as a teaching approach

## **3.2 Research Methods**

Thomas (2017: 50) points to triangulation and reports that “it is much better to rely on several kinds of evidence rather than just one” and that there are different ways to source evidence, such as personal experience, testimony of others, documents or archives, artefacts, and observation. According to Patton (2002: 10), “qualitative methods consist of three kinds of data collection: (1) in- depth, open-ended interviews; (2) direct observation; and (3) written documents”. This study used all the aforementioned data collection methods, namely:

- observation before the intervention
- special educator’s testimony through interviews
- open-ended and conversational communication with the special educator
- documents and students’ archives provided by the special educator

In this part of the study, I will refer to the research methods and instruments of the data collection of the study and the rationale behind choosing them in order to gain a better understanding.

## **3.3 Observation**

The initial phase of the research involves examining the surroundings where the lesson with the special educator and the participants took place. The purpose behind this first observation (Day 1) was to discern the specific requirements and preferences of the HFA children, to shape a learning setting tailored to their needs and to ensure that it captivated everyone involved. Firstly, it provided me with an understanding of the specific needs of the target group and through direct observation, I gained valuable insights into their cognitive processes, engagement levels, and potential challenges encountered while interacting with the original material. This observational approach was particularly valuable in tailoring the adaptation of the tale, allowing for a more targeted adjustment to accommodate the unique requirements of the children with HFA. This testing phase served not only as a practical measure but also as a valuable learning opportunity which shed light on the effective communication strategies tailored to the unique needs of the

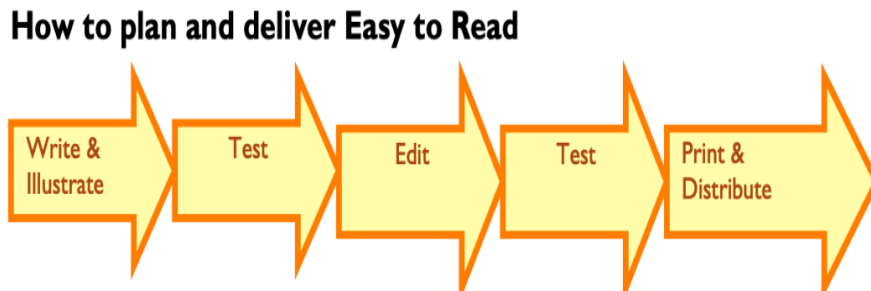
intended readership. This phase was designed to understand the unique characteristics and interests of the participants, facilitating the creation of an engaging learning and reading environment that aligns with their individual needs based on the special educator's recommendations. McKechnie (2008: 573) mentions that observation "is one of the oldest and most fundamental research methods approaches. This approach involves collecting data using one's senses, especially looking and listening in a systematic and meaningful way." According to the three dimensions of observation proposed by Cooper & Schindler (2001), this observation was direct, in that I attended the natural setting, and my presence was known to the participants. Patton (2002) suggests that qualitative researchers should be aware of the potential "observer effects" occurring during their studies and refer to them as limitations. In the current study, the "observer effect" in the classroom affected the young learners, and this was noticeable because the special educator mentioned that one of the HFA children was affected by the fact that I had the same name as his mother did and he was not as responsive as usually. Robson (2002) refers to "observer effects" as attractions for the population being studied, while Berger (2010) refers to the disadvantages of participant observation by pointing out the "problem of mind reading" in which the researcher assumes what the participants think and the reason behind these thoughts. This happens when researchers are fully immersed in the scene they are studying, and they start guessing what's going on in participants' heads without actually asking. This "mind reading" challenge shows how interpretations can get subjective when trying to understand what people are really thinking. To deal with it, researchers need to stay self-aware, reflect on their own biases, and use different sources of information to check and verify their interpretations. Nonetheless, during the observation I tried to note the facts and not hypothesize the intentions behind them. When a student's behavior was not clear to me, I turned to the teacher for further explanation.

For instance, during the observation, I noticed that one of the children was continuously buzzing its hands. However, upon seeking clarification from the special educator, I gained insight into the child's emotional state and it was explained to me that the child was expressing excitement by this behavior when the special educator shared that the children had been asked to draw the witch from

the tale, and drawing happened to be this particular child’s favourite activity. The buzzing hands were a manifestation of the child’s joy and will to engage in the activity of drawing, underscoring the importance of recognizing and appreciating individual preferences.

### 3.4 Materials and Methods

The adaptation of “The Little Mermaid” for children with HFA involved a systematic approach aligned with the established guidelines for creating Easy-to-Read (EtR) documents according to the “Make it Easy: A guide to preparing Easy to Read Information.” The steps to ensure effective communication with the target audience can be seen in Figure 3.



*Figure 4 Make it Easy: A guide to preparing Easy to Read Information*

Initially, it was important to decide which medium of communication should be used so that it was aligned with the study’s objectives. Some of the options for the printed edition of the adaptation of the story were for it to appear as

- (1) a printed booklet, which could be distributed in various settings, including schools, libraries
- (2) a digital e-book, which is more accessible for e-readers, or through tablets, and smartphones
- (3) an audiobook, which could address individuals with different learning preferences, including those who benefit from auditory learning
- (4) an interactive application, which could include animation, interactive elements, and accessibility options

(5) an online educational platform, which allows easy sharing, downloading, and viewing from any device with internet access.

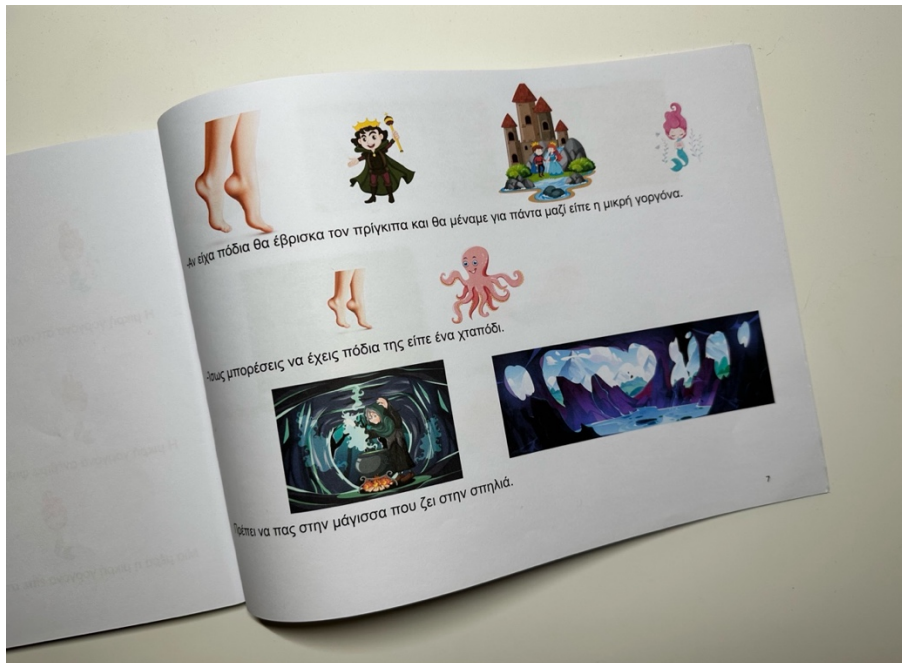


Figure 5 “The Little Mermaid” booklet adapted with the Easy to Read (EtR) method

Careful consideration was given to the choice of the medium of communication for the adapted story, aligning it with the study’s objectives and the unique needs of the HFA participants. While various options such as digital e-books, audiobooks etc. were available, a printed booklet in A4 landscape orientation emerged as the most suitable choice for several reasons. A printed format was deemed more tangible and familiar. The physical presence of the booklet allowed for a more tactile interaction, aligning with the preferences and comfort levels of the participants. Secondly, the simplicity and clarity of the printed booklet format catered to the potential sensory sensitivities of HFA children. The absence of digital interfaces, animations, or interactive elements minimized potential distractions, creating a focused and accessible reading experience. Bogdashina (2016) discusses how individuals with autism often experience sensory sensitivities that can worsen by the use of digital interfaces. Digital devices may introduce additional sensory stimuli, such as screen brightness, flickering, or auditory feedback, which could potentially overwhelm individuals with autism. The researcher emphasizes the need to consider sensory preferences when

designing learning materials or interventions for individuals with autism and suggests that some individuals with autism may find traditional, non-digital formats more comfortable and less overwhelming, as they reduce the sensory load compared to interactive digital interfaces. Moreover, the printed format facilitated easy distribution and it provided a portable, offline option, ensuring flexibility in usage without relying on specific devices or internet connectivity. This decision aimed to prioritize accessibility and inclusivity, accommodating a range of learning preferences for the HFA readers. The text was presented in blocks with a limited number of sentences per page.

Bogdashina (2016:24) draws a parallel to blindness, where the absence of visual information significantly influences overall functioning:

Although blindness means that there is an absence of visual information about the world, this affects all levels of functioning. To draw a parallel, one might assume that autism means there are distortions of visual/ auditory/ gustatory/ olfactory/ tactile information about the world. Whereas those who are blind/ deaf/ deaf-blind have other senses (that work properly) to compensate for their lack of vision or hearing, and 'see' through their ears, nose or hands, or 'hear through their hands and eyes, autistic individuals often cannot rely on their senses, as all of them might be affected in some way.

As a next step, it was important to identify what parts of the tale were most relevant to the target audience. In other words, in this step of the process it was important to exclude extra characters of the tale, for instance the sisters of the little mermaid, who do not add to the narrative and the story and could potentially confuse the target audience. The observation technique during the first day of the intervention with Greek translated text proved to be immensely beneficial for several reasons.

As mentioned in the previous chapter, the initial plan was to generate illustrations using an AI tool (Midjourney, see Appendix 1) for the illustrations of the tale's adaptation in order to produce unique and realistic images. Following the first day of the class observation, it became apparent that this approach might not be as beneficial for HFA children. During the intervention with the Greek target version of the book by translator Maria Myroni, it was evident that the children were overly focused on the abstract illustrations, diverting their attention from the special

educator's input. In response to this observation, the approach shifted, and it was decided to use pictographs instead.

Pictographs, visual symbols or simple pictures used to express ideas or convey information and are in accordance with the *Guidelines for easy-to-read materials* by IFLA. This decision aligned with the teaching methods already employed by the special teacher, ensuring a more effective and engaging adaptation for children. The illustrations, which were crafted with the assistance of the Midjourney AI tool, were printed and provided to the special educator for use as follow-up activities. The intention was to offer a tangible and visually engaging teaching resource for the children. The printed illustrations encouraged continuous interaction and comprehension. Integrating these visuals into follow-up activities would enhance retention, create discussions and a multi-sensory learning experience for the HFA children. Nomura, Nieslen and Tronbacke (2010) suggest that the EtR concept is not only *language- and content-based* but it also concerns *illustrations, design and layout*. Subsequently, the text was crafted employing the EtR method and suitable pictographs were selected to complement the narrative.

The initial step was preparing the first EtR document. Prior to finalizing the leaflet, a rigorous testing phase involved obtaining feedback from the special educator working with the participants of the study to guarantee clarity and understanding. These carefully chosen visual elements were thoughtfully embedded within the narrative to enhance accessibility and comprehension for the HFA learners. The adaptation sought to create an interplay between textual and visual elements, fostering an inclusive reading experience. Finally, the agreed leaflet was printed and distributed to the participants. This approach enhanced understanding of the audience's needs throughout the entire communication process.

## 4 Data analysis

The data analysis phase of this study delves into the analysis of adapting Hans Christian Andersen’s “Little Mermaid” for HFA children within the Greek educational context. This section describes the adaptation process, emphasizing the challenges, decisions and creative considerations inherent in transforming a classic tale for a specific audience.

The adaptation process started with a meticulous review of the translated Greek version of “The Little Mermaid.” The initial groundwork involved a thorough examination of linguistic nuances and the overall accessibility of the text for children with intellectual disabilities. Given the unique characteristics and needs of the HFA children, the adaptation process prioritized elements that catered for their sensory preferences, cognitive styles, and emotional sensitivities. A collaborative effort with the special educator was made to ensure that the adapted narrative resonated with the target audience. Visual aids, simplified language structures, and interactive components were strategically integrated to enhance comprehension and engagement. Critical decisions in the adaptation process were guided by the desire of maintaining the essence of Andersen’s tale. The narrative structure, character interactions, and thematic elements were carefully curated to strike a balance between educational enrichment and entertainment.

The data analysis adopts a multifaceted approach, primarily focusing on qualitative dimensions. Classroom observations and feedback from educators were collected to evaluate the impact of adaptation. In the subsequent sections, the study will unravel the key findings, challenges encountered, and implications derived from the data analysis, shedding light on the transformative potential of adapted literature material in inclusive educational settings for children with intellectual disabilities. This chapter will serve as a comprehensive exploration of linguistic choices, cultural considerations, and accessibility features. The aim is to find linguistic elements embedded in both versions, offering valuable insights into the transformative potential of tailored adaptations.



## 4.1 Linguistic Considerations

The linguistic landscape (vocabulary choices, sentence structures, and overall language complexity) is a decisive aspect of this comparative analysis. This lays the foundation for understanding how linguistic adaptations cater to the cognitive and communicative preferences of HFA children. Complex sentence structures from the original translation were streamlined in the adapted version, ensuring clarity and ease of understanding. A noteworthy example is the sentence,

“Many years ago, at the bottom of the sea, mermaids lived in coral palaces,”

in the Greek translation, which in the adapted version was restructured to read,

“Many years ago, mermaids lived at the bottom of the sea.”

This modification involves a more straightforward and linear sentence construction, providing a clearer flow of information and facilitating comprehension, considering the EtR guidelines for concise and straightforward language. In the example below, “P.T.” stands for “Professional Translation” by Maria Myroni.

In example 1, the narration is from the introduction of the tale and the translator, Maria Myroni, unfolds in the enchanting realm of the ocean.

### Example 1

P.T.

Πριν από πολλά χρόνια, στο βυθό της θάλασσας κατοικούσαν γοργόνες σε κοραλλένια παλάτια (2003: 8)

Adapt. Πολλά χρόνια πριν ζούσαν γοργόνες στον βυθό της θάλασσας.

Connecting this adaptation strategy to the specific needs of HFA children finds support in research on neurodiversity and language processing. Baron-Cohen (2009) highlights the unique cognitive profiles of individuals with autism, emphasizing the preference for clear and unambiguous language. Baron-Cohen’s (2009) work in the field of autism, proposed a theoretical framework that classifies

cognitive styles between two dimensions: (1) empathizing and (2) systemizing. Individuals within ASD are thought to exhibit a cognitive profile characterized by a relative strength in systemizing (analysing and constructing systems) and a relative weakness in empathizing (understanding and responding to the feelings of others). In the context of the adaptation using EtR for HFA children, Baron-Cohen's (2009) theory aligns with the idea that individuals with autism may benefit from materials that facilitate systematic understanding and reduce cognitive load. EtR, with its emphasis on simplified language and visual supports, addresses the cognitive preferences of individuals with autism, providing a more accessible and structured means of engaging with information. By incorporating the EtR principles, the adaptation recognized the cognitive strengths and challenges associated with autism, aiming to enhance comprehension and engagement for the HFA children. The use of pictographs and simplified sentence structures offered a systematic and empathetic approach to communication tailored to the needs of the target audience. Additionally, studies in educational linguistics, such as those by Schuele and Dykes (2005), shed light on language interventions for children with language impairments, advocating for simplified structures to enhance comprehension. Thus, the adaptation's focus on streamlining sentence complexities resonates with both the broader principles of language accessibility and the nuanced requirements of neurodiverse readers, aligning with evidence-based practices in the field.

In the second example, the Greek translated item, “επιφάνεια” (surface) is used to describe the boundary between the underwater realm and the sea's outer layer. Recognizing the potential complexity for the HFA children, the adapted version simplifies this to “ψηλά στην θάλασσα” (high up the sea). This modification aims to offer a more tangible and vivid description, aligning with the goal of enhancing comprehension for the target audience. Additionally, following the principles outlined in the guidelines for adapting EtR material, special attention was given to handling challenging vocabulary. An alternative would be including “surface” in the adapted version which was followed by an immediate explanation in the narrative of the tale. This approach ensures that comprehension is reinforced by providing clarification each time the challenging term is encountered within the adapted material.

## Example 2

The little mermaid lived at the bottom of the sea and was wondering about the world above, so she questioned her mother when she would be allowed to swim to the surface of the sea:

P.T

Πότε θα βγούμε στην επιφάνεια της θάλασσας για να θαυμάσουμε τη στεριά; ρώτησε μια μέρα τη μητέρα της. (2003: 10)

Adapt. Πότε θα βγω πάνω ψηλά στην θάλασσα για να δω τη στεριά;

In the adapted version, the choice to replace the term “επιφάνεια” (surface) from the original Greek translation with “ψηλά στην θάλασσα” (high up the sea) aligns with established principles in cognitive linguistics and pedagogy. Scholars such as Vygotsky (1978) emphasizes the importance of providing learners with language that corresponds to their current cognitive abilities, promoting optimal comprehension and learning. By opting for a more concrete and accessible description, the adaptation draws from Vygotsky’s Zone of Proximal Development (ZPD) framework, ensuring that the language used is within the learners’ ZPD, facilitating a smoother cognitive transition. ZPD represents the cognitive space beyond the learner’s current level of understanding, where guidance and support can lead to enhanced comprehension. By tailoring the language within this developmental zone, the adaptation aims to scaffold the cognitive journey of the HFA learners. Furthermore, the decision to simplify complex vocabulary, as seen in the modification of “surface,” resonates with the Plain Language Movement proposed by Cutts (2009) which emphasizes clarity in communication. The movement advocates for the removal of barriers to understanding, particularly through the use of everyday language and simplified terminology. By adhering to these principles, the adapted version not only accommodates the cognitive needs of HFA children, but it also aligns with broader linguistic accessibility goals.

In the third example, the Greek translated segment could potentially pose challenges within the learners’ ZPD due to its complexity, so the adaptation

strategically simplifies the language, as seen in the sentence ‘the waves were very, very big. The ship crashed on the rocks.’\_This deliberate choice not only aligns with the principles of EtR but also ensures that the narrative remains comfortably within the cognitive reach of the HFA children’s ZPD. By employing such lexical simplification, the adaptation facilitates a smoother engagement with the storyline, supporting the learners in comprehending and connecting with the narrative at their unique cognitive levels.

### **Example 3**

The sea was rough and the little mermaid saw a ship fighting against the waves and finally crashing on the rocks:

P.T

Η θάλασσα ήταν ταραγμένη· η μικρή γοργόνα είδε ένα πλοίο να παλεύει με τα κύματα και τελικά να συγκρούεται στα βράχια. (2003: 10)

Adapt. Τα κύματα ήταν πολύ πολύ μεγάλα. Το πλοίο έπεσε πάνω στα βράχια.

In the following example, the sentence structure of the original Greek segment was simplified without compromising the core message. By breaking down complex constructions into more straightforward expressions, the adapted version catered to the cognitive preferences of HFA children, fostering a more accessible and engaging reading experience by repeating the little mermaid’s wish to have feet instead of a tale and giving immediate directions by using “you have to go” (πρέπει να πας). The prompt from the original text mentions “Perhaps your wish will come true, said an octopus which was listening, if you visit the witch who lives in the cave of the craggy rocks”. The EtR guidelines highlight the necessity of breaking down complex and lengthy sentences to enhance readability and comprehension, particularly for readers who may face cognitive challenges. Following this principle, the adaptation was broken down to two separate sentences (1) “Maybe you can have legs, an octopus told her (2) You must go to the witch who lives in the cave.”

In example 4, an octopus who was listening to the conversation of the little mermaid with her sisters suggested that the mermaid should visit the witch who lived in the cave of the craggy rocks in order to ask her to grant her legs so that she could leave the sea and experience the world above:

#### **Example 4**

- P.T. – Ίσως πραγματοποιηθεί η επιθυμία σου, είπε ένα χταπόδι που άκουγε, αν επισκεφτείς την μάγισσα που ζει στη σπηλιά των απόκρημνων βράχων. (2003: 13)
- Adapt. – Ίσως μπορέσεις να έχεις πόδια της είπε ένα χταπόδι.
- Πρέπει να πας στην μάγισσα που ζει στην σπηλιά

In this example, the application of EtR principles in the adaptation aligns with contemporary perspectives on cognitive preferences in individuals with HFA, such as those outlined in Baron-Cohen's (2009) Empathizing-Systemizing (E-S) Theory. The E-S theory suggests that individuals with autism often demonstrate strengths in systemizing, which involves analysing and constructing systems, while facing challenges in empathizing, particularly in understanding and responding to the feelings of others. The adaptation strategy involves simplifying sentence structures and providing immediate and clear directions and it additionally resonates with the cognitive strengths associated with systemizing. The repetition of the little mermaid's wish to have feet instead of a tail, along with the use of direct instructions like "you have to go," caters to the systematic processing preferences of individuals with autism, contributing to a more accessible and engaging reading experience. Furthermore, the adaptation reflects the understanding that individuals with HFA may benefit from reduced cognitive load, as suggested by the EtR guidelines. Breaking down complex and lengthy sentences into simpler expressions aligns with the need for enhanced readability and comprehension for individuals who may face cognitive challenges.

## 4.2 Using multimodal material

The following section explores incorporation of various accessibility features, including visual aids which were tailored to the unique needs of the HFA children. A significant inclusion was the strategic use of pictographs to enhance comprehension and learner engagement. While the Greek translation mostly relied on conventional methods, the adapted version employed innovative techniques.

In consideration of the HFA children's ZPD, the adaptation pays special attention to linguistic nuances that might pose challenges within their cognitive reach. An instance of this approach is found in the translation of the metaphorical item "ταραγμένη" (turbulent or rough). Recognizing the potential difficulty this metaphor might present for the HFA learners, the adaptation employs a more concrete and accessible description, "Η θάλασσα είχε πολλά μεγάλα κύματα" (The sea had many big waves [Greek collocation]). To enhance comprehension, this adaptation is accompanied by pictographs illustrating the concept of the "many big waves." By opting for a more explicit and visually supported language, the adaptation ensures that the portrayal of the challenging sea aligns seamlessly with the HFA children's ZPD. This approach aims to create a reading experience that is not only linguistically accessible but also visually reinforced, enhancing the overall engagement and understanding of Andersen's tale.

### Example 4

In this example the accompanying pictograph, the representation of the "three big waves" serves as a visual aid that directly corresponds to the textual description. This visual element is strategically designed to reinforce the meaning of the adapted text, providing a direct and concrete association for the HFA readers.



Η θάλασσα είχε πολλά μεγάλα κύματα.

*Figure 6 Pictographic representation of the waves*

The little mermaid expresses her longing for legs and envisions herself being with the prince forever. The adapted version seeks to simplify and make this sentiment more concrete, aligning with the principles of EtR. The phrase “If I had legs, I would find the prince and we would be together forever,” was crafted to be within the ZPD of the HFA children, ensuring accessibility and comprehension. To further enhance understanding, the pictographs were strategically employed. The use of pictographs depicting legs, the prince, and the couple living in front of a castle serves a dual purpose. Firstly, it provides visual support, aiding in the comprehension of the narrative. Secondly, it aligns with the principles of multimodal communication, recognizing that the HFA readers may benefit from visual supports (Figure 7). The visual representation of legs and the couple appearing together reinforces the narrative, making it more tangible and relatable for the HFA children. The inclusion of these pictographs not only adheres to the EtR methodology but also takes into consideration the diverse learning styles and sensory preferences of the HFA children. By combining clear and straightforward language with visual elements, the adaptation aims to create a more inclusive and engaging reading experience for the target audience.

### Example 5

The little mermaid expresses her profound yearning for legs and envisions a life with the prince. She is willing to do whatever the witch asks her to.

P.T. – Αν είχα πόδια, τους είπε, θα πήγαινα να ψάξω τον πρίγκιπα και θα εμένα για πάντα στο πλάι του. (2003: 13)



-Αν είχα πόδια θα έβρισκα τον πρίγκιπα και θα μέναμε για πάντα μαζί είπε η μικρή γοργόνα.

Figure 7 Pictographic representation of the mermaid's vision

Additionally, the original text included a complex expression translating to “You are in love with the prince, aren't you?” This expression would probably be challenging for HFA children due to its abstract nature. To enhance comprehension, the adaptation simplified the concept of being in love to a more straightforward emotion which is “love”. Additionally, recognizing the visual learning preferences of HFA children, pictographs were incorporated. These pictographs included symbols as seen in example 5 representing love (a heart), the prince, and the witch, aiming to provide visual cues and allow a more concrete understanding of the narrative. In the adaptation, a conscious decision was made to enhance clarity and directness. Instead of using question tags, as in the original text, the adaptation employed a more straightforward and explicit language by directly addressing the characters involved and avoiding complex linguistic structures. This approach aligns with inclusive practices, ensuring that the adapted material caters to the specific needs of its audience.

In example 5, the little mermaid went to the witch to ask her to grant her legs because she was in love with the prince and wanted to find him:

### **Example 5**

P.T.

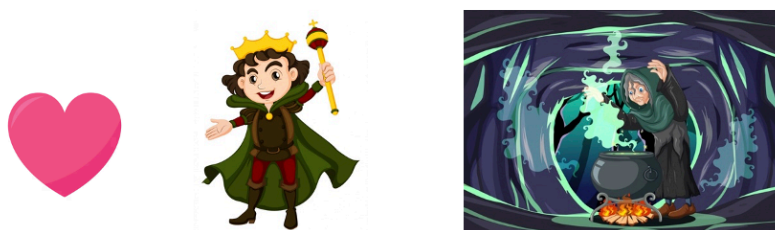
– Είσαι ερωτευμένη με τον πρίγκιπα, έτσι δεν είναι; (2003:14)

While the pictographic representation includes familiar elements such as the heart emoticon and the prince, it also incorporates a pictograph of the witch engaged in an activity, such as cooking or preparing a potion. This seemingly specific detail, while not explicitly mentioned in the text, maintains consistency throughout the narrative. For the HFA children, this visual continuity serves a crucial role in providing a recognizable and predictable pattern, contributing to a sense of coherence and familiarity. The relevance of this consistent pictographic element lies in its capacity to offer a structured and comprehensible visual language, aligning with the unique needs and preferences of the learners.

Bogdashina's (2016) perspective on sensory processing in autism emphasizes the significance of recognizing and accommodating diverse sensory experiences. The



use of pictographs aligns with this perspective by providing visual supports that cater to the specific sensory needs of the HFA children. By representing complex concepts, such as turbulent seas or the feeling of being in love, through visually accessible elements like waves or the love emoticon accordingly, the adaptation seeks to create a more inclusive and comprehensible reading experience, resonating with Bogdashina’s emphasis on understanding and addressing sensory differences in individuals with autism.



-Αγαπάς τον πρίγκιπα; την ρώτησε η μάγισσα.

*Figure 8 Pictographic representation of the prince and the witch*

As mentioned, I opted for pictographs over AI-generated pictures using the Midjourney tool, also because of the audience’s familiarity with pictographs. This decision was aligned with the ongoing use of pictographs in classroom settings. Nevertheless, recognizing the potential value of the AI-generated pictures, I provided them to the teacher for a follow-up activity. The intention was to introduce these pictures at a later stage, allowing the HFA children, who would already become acquainted with the story, to engage with more detailed visual content.

## **4.2 Implementing the activity**

In the initial phase of planning this intervention, I reached out to a special educator from a school for autistic children, in Attica, to explore the potential of implementing the adapted version of Andersen’s tale. The special educator mentioned that her group of children was non-verbal and low-functioning, which suggested that they would be able to understand and be engaged in the study. She only expressed reservations about the feasibility of working with the LFA children in this context. She finally acted as a ‘gatekeeper’ and suggested another colleague

who worked with HFA children at the same special school for autism. Hoenig (2015: 618) identifies a gatekeeper as “an individual or collective actor who is in a position to control access to resources and rewards relevant in a particular social system.” The gatekeeper in this case was a special educator, who had ten years of experience and had been working in this special school for autistic children for more than seven years.

The new special educator, who was aware of educational goals and needs of children with HFA, welcomed the proposed intervention and willingly undertook the responsibility, appreciating the potential educational benefits for the HFA children under his care. A collaborative decision-making process started, which ensured that the intervention was not only feasible but also resonant with the specific needs and goals of the HFA children in the educational setting. There were four High-Functioning Autism (HFA) children involved in the intervention. The insights from both the special educators were specifically considered in the context of this group, comprising HFA children. Meeting the needs of these four individuals formed an integral part of the planning and implementation of the intervention.

Upon my arrival during the first hour of the school day, I found the four HFA children gathered around the special educator's table. The children were engaging in their daily rituals, they began by singing a Greek song after the special educator's instructions to welcome the new day.

Greek song lyrics

Καλημέρα τι κάνεις<sup>7</sup>  
να 'σαι πάντα καλά  
κι όταν είσαι κοντά μου  
κι όταν είσαι μακριά  
να 'ναι κάθε σου μέρα  
μια καινούργια αρχή  
καλημέρα τι κάνεις  
σ' αγαπάω πολύ..

Good morning, how are you?  
Be always well  
even when you are near me  
even when you are far away  
may each of your days  
be a new start  
good morning, how are you?  
I love you very much..

The children actively participated, making gestures in sync with the lyrics, showcasing their enthusiasm for the morning ritual. Following this, the special educator prompted the children to identify the current day of the week. They did

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<sup>7</sup>Singer: Yannis Parios, Album: Επαφή [Contact], Composer: Stamatis Spanoudakis, Music type: Greek popular music, 1992, Theme: love. <https://www.greeklyrics.gr/stixoi/kalhmera-ti-kaneis/>

and the group transitioned into another song, this time centered around the days of the week with a whimsical connection to the Smurfs. Engagement in these daily routines does not only highlight the joyful atmosphere but also demonstrates the children's capacity for interactive and participatory activities, setting the scene for the subsequent intervention with the "The Little Mermaid" project. The special educator then initiated a discussion exploring the children's familiarity with the concept of a mermaid and drew an illustration of a mermaid on the whiteboard. Subsequently, the children were prompted to share their thoughts on the nature of this mythical creature and draw comparisons between a mermaid and a human being. This interactive introduction served as a precursor to the adapted version of "The Little Mermaid", provided valuable insights into the children's cognitive and interactive capabilities. This firsthand experience allowed me to comprehend their unique levels of comprehension and engagement. Additionally, it provided a valuable opportunity to discern what methods and approaches resonated most effectively with the children.

These insights became a pivotal foundation for tailoring subsequent interventions, ensuring an approach that optimally aligns with the individual needs and preferences of the HFA children. As part of these valuable insights, the special educator also shared the method they employed in working with pictographs. This revelation significantly impacted my initial plan, which was originally designed to utilize AI-created pictures through the Midjourney AI tool. The special educator illustrated their pictograph approach to me, which led me to adjusting my strategy to better align with the established and effective practices already in use. This collaborative exchange allowed a more nuanced and tailored approach to the adaptation process.

Even though the HFA children had a conceptual understanding of what a mermaid is, articulating the word proved challenging due to the complex combination of consonants in the Greek term "mermaid" (in Greek: γοργόνα). Recognizing this difficulty, the special educator patiently repeated the word several times, until a notable progress emerged, and all four children eventually pronounced the challenging word correctly, ensuring effective communication and comprehension on the part of the HFA children. The reading session comprised two stages. First, the special educator presented the original Greek translation of the tale, on the first

day of the intervention, and then transitioned to the adapted version using the EtR method and pictographs, on the second day of the intervention. Reflecting on this process, the special educator emphasized the enhanced efficacy of the adapted text by stating that “the second reading proved to be more liberating for the children” (personal communication) facilitating a smoother connection between meanings conveyed through images. He confirmed that integrating illustrations allowed the children to better grasp what they hear by associating it with visual representations. These visuals guided children from broader concepts (like the entire beach and the bottom of the sea with all the mermaids) to the focus on the little mermaid.

During the interview he gave me afterwards, the special educator mentioned that visual aids play a crucial role in alleviating confusion in children, preventing them from being overwhelmed by letters and words. The special educator highlighted this by stating, “Visual aids also help children not to be confused by letters and words, ... to read the pictures. That is, to be able to interpret the images without having to read, ... without an unnecessary anxiety or stress to read” (my translation). HFA children comprehend the story by understanding the images independently. He suggested that success for a child with autism lies in their ability to grasp tasks and activities without relying on verbal stimulus. In the context of “The Little Mermaid” project, he illustrated the point by suggesting that “student X should read the images without making use of the verbal input underneath and say: the little mermaid met her friends at the bottom of the sea; this is the help that images provide” (my translation).

The special educator also aligned the current activity impact with the educational goals and needs of the children for effective communication. In his words, “the main goal is communication.... for the child to be able to share knowledge with classmates, that we are reading a fairy tale, that we are travelling to another imaginary world, imagining what is beyond us.” The adapted tale operates as a channel for shared experiences, fostering communication among the children and guiding them into the realm of imagination. Furthermore, the educator underscored the significance of cultivating imagination and fantasy, suggesting that engaging with the story contributes to “training their imagination, the fantastic, the fairytale, which is the basic means for a child to communicate.” His viewpoint emphasized the dual purpose of the adapted tale: not only as a means of communication but

also as a tool for developing imaginative capacities and introducing poetic aspects of reality to children. The educator's insights underscored the rich educational potential embedded in the narrative of "The Little Mermaid," aligning with the broader goals of communication and imaginative exploration.

### **4.3. Parental Consent**

Before starting the observational part of the study, I was introduced by the special educator to the HFA children. Since the participants were no adults, a consent form was given in advance to the parents of the participants (see Appendix 2), explaining the research design to them, the purpose of the research and the procedures. Additionally, in the interventional as well as the observational part of the study, I was not involved in the process of reading the translated or the adapted version of the tale. Privacy and confidentiality were rigorously upheld in order to safeguard the participants' information. The ethical foundation of this study required a constant collaboration with the participants' special educator to ensure the accessibility and appropriateness of the adapted materials. Furthermore, the emotional well-being of the participants was considered crucial as part of a vulnerable section of the population.

## 5 Discussion

The chapter delves into a comprehensive discussion that intertwines the EtR method, intersemiotic translation, and the practical application of their principles in using the adaptation of “The Little Mermaid” with the HFA readers. The theoretical richness of intersemiotic translation serves as a foundation upon which the adaptation process unfolds. EtR operates on the premise that written information should be comprehensible to a broad spectrum of readers. This resonates with the principles of intersemiotic translation, a theoretical framework that explores the complex process of translating meaning across different semiotic systems. In essence, both EtR and intersemiotic translation support the idea that communication should go beyond conventional linguistic boundaries. EtR does this by simplifying language, and intersemiotic translation does it by transforming textual elements into visual symbols. These theoretical frameworks are in alignment with my endeavour to adapt a classical tale for the unique cognitive and sensory needs of the HFA children. The adaptation of “The Little Mermaid” is a practical application of these theories. The linguistic simplification adheres to the EtR guidelines by ensuring linguistic clarity and cognitive accessibility for the target HFA audience. Simultaneously, the incorporation of pictographs, serving as visual symbols, aligns perfectly with the principles of intersemiotic translation. “The Little Mermaid” is a classic fairy tale with nuanced themes. Adapting it for children involves simplifying language without losing the essence of the narrative. The EtR method, if applied thoughtfully, could aid in simplifying language while retaining the emotional and moral depth of the story. Visual elements, like pictographs, can complement the text and provide additional layers of understanding. The goal is to ensure that the adaptation is accessible to children without underestimating their capacity to engage with meaningful narratives.

By emphasizing inclusivity and adapting the narrative to be more engaging and accessible to the HFA children, this approach can be seen as adopting positive politeness tactics, characterized by efforts to minimize the distance between the speaker or storyteller and the listener, here represented by the special educators and the young readers/listeners. Such strategies are pivotal in cross-cultural

translations, especially when catering to specific needs, as they ensure that the adapted content is not only linguistically but also visually appropriate for the target audience. Brown & Levinson's (1987) framework categorizes "claiming common ground" as a key positive politeness strategy, which in the adaptation is exemplified by the use of pictographs. This strategy, as noted by Brown and Levinson (1987), serves to build rapport and a sense of shared experience, crucial for engaging HFA children. By using visual aids familiar to the children, I created a shared space of understanding, making the tale more relatable and engaging for them. This approach aligns with the Greek cultural norm of fostering connections and inclusivity, which is especially beneficial for the HFA children who might find comfort in familiar structures. Regarding negative politeness, Brown & Levinson (1987) discuss the concept of allowing autonomy in interpretation which involves respecting the reader's autonomy to interpret the story. While providing necessary guidance through simplified text and clear visuals, I have also left room for individual interpretation and imagination which is a crucial aspect of engaging the young readers. This approach allowed the HFA children to draw personal meanings from the story, fostering a sense of independence in their engagement with the tale.

According to Brown and Levinson's (1987) framework, the use of positive politeness strategies, such as incorporating pictographs, aligns with efforts to reduce social distance and foster inclusivity. This approach is particularly resonant in Greek culture, which values collectivism, as noted by Hofstede (1984). In my adaptation of "The Little Mermaid," the tendency towards positive politeness often seen in Greek translations is reflected in how I tailored the narrative. The simplification of verbal material is a gesture of positive politeness, as per Brown & Levinson's framework (1987), showing deference to the cognitive levels of the HFA children. Additionally, the linguistic strategy of replacing the imperative (as in the example above) with the hypothetical also belongs to positive politeness. The emphasis on visuals also represents a positive politeness strategy, aiming to engage and connect more deeply with the audience. Sensory-rich narratives, combining these strategies, engage the audience positively while respectfully addressing their individual sensory needs. This approach showcases a nuanced application of politeness strategies in cross-cultural translation.

## 5.1 Evaluation of the EtR method

The EtR method, with its emphasis on symbolic representation, and multimodal engagement has guided my adaptation to cater specifically to the unique cognitive needs of the HFA readers. In this section, I will embark on an evaluative journey, analysing the impact of the EtR method on accessibility and comprehension within the adapted version of Andersen's tale. I will seek to understand how this method aligns with the diverse learning styles of the target audience, shedding light on its potential as a transformative tool in inclusive storytelling and story-reading for HFA readers and individuals with reading difficulties.

The fundamental goal of EtR is to enhance accessibility and comprehension which is a shared objective with intersemiotic translation. By simplifying linguistic complexity and supplementing textual information with visual cues, the adapted version not only aligns with the principles of EtR but also embodies the essence of intersemiotic translation. This interplay between linguistic and visual elements fosters a more inclusive reading experience, especially for the HFA readers. Intersemiotic translation, as conceptualized by Jakobson (1959), involves the transfer of meaning between different sign systems. In the context of this adaptation, it encompasses the transformation of the original verbal text into a multimodal format, integrating both verbal and visual elements. The EtR adaptation of the tale can be viewed as an instance of intersemiotic translation, where the verbal text undergoes a transformation into a visual-verbal narrative. Pictographs are strategically employed to convey meaning, bridging the gap between different semiotic modes.

The incorporation of visual elements, such as pictographs, introduces a multimodal approach into the adaptation. This multimodal approach enriches the reading experience adding meaning beyond the verbal text. According to Kress & van Leeuwen (2006) the incorporation of multimodal elements enhances the accessibility and comprehension of literary material.

The integration of pictographs in the adaptation of Andersen's tale aligns with the principles of multimodality. This approach resonates with the idea that the HFA individuals benefit from a combination of visual and textual cues. Kress's (2009) concept of multimodality emphasizes that the integration of various



communicative modes beyond text, such as visual elements, sound, and gestures, offer valuable perspectives. By applying Kress's (2009) framework the adaptation of "The Little Mermaid" can be examined not only linguistically but also for its multimodal adaptation to the specific needs of the HFA children. Kress's (2009) approach encouraged me to think beyond mere linguistic translation: how can the tale come alive through specific and repetitive visual representations? This encouraged me to understand the importance of considering how different modes of communication, such as simplified language and visual aids, can enhance understanding and engagement for the HFA audience. Furthermore, Kress's (2009) emphasis on the social and cultural context of communication aligns with the need to adapt Andersen's tale to the Greek cultural context in a manner that is accessible and meaningful for the HFA readers. Thus, Kress's (2009) theories not only enrich the analysis of the translated text but also highlight the broader implications of adapting literary works for inclusive education. This demonstrates how multimodal communication strategies can be effectively employed to cater to diverse learning needs and preferences.

Jewitt et al. (2016) complement the work of Kress by emphasizing the significance of multimodal resources in educational settings and highlighting how visual elements, alongside traditional textual mediums, can significantly enhance learning experiences. Her research suggests that integrating visual elements, such as illustrations, color schemes, and spatial layouts can deeply engage students, especially those with diverse learning needs like HFA. By incorporating such multimodal tools, the adaptation could not merely translate the story into a different language but also transform it into a sensory-rich narrative that is more accessible and engaging for the target HFA audience. Jewitt et al. (2016) additionally underlines the power of visuals not just as supplementary aids but as integral components of storytelling and learning. In the adaptation of Andersen's tale, this could mean using carefully designed pictographs or illustrations that resonate with the cultural and emotional landscape of the Greek HFA children. These visual cues could help in contextualizing the story's themes, making the narrative more relatable and comprehensible. Ultimately, the adaptation, informed by both Kress's (2009) and Jewitt et al.'s (2016) theories, emerges as more than a translation; it becomes a multimodal educational tool. It stands as a testament to

the evolving nature of storytelling and learning, showcasing how classic tales can be reimagined to connect with and inspire a broader and more diverse audience.

Forceville (2009) delves into how visual elements contribute to meaning in communication, exploring how images and multimodal expressions can convey complex ideas and emotions more effectively. For children with HFA, who may interpret and interact with narratives differently, the use of visual metaphors can be particularly powerful. Forceville (2009) suggests that these metaphors are not just decorative elements but are integral to communicating the essence of the tale. For example, in “The Little Mermaid,” key themes like transformation and sacrifice (the mermaid should exchange his voice for human legs) can be vividly expressed through visual metaphors. Forceville’s (2009) approach would encourage a careful consideration of how images are used to represent these themes. In my adaptation, this could mean designing pictographs that capture the mermaid’s emotional journey in a way that resonates with the HFA children, using visual cues to symbolize complex ideas like love, sadness, and transformation. Moreover, Forceville’s (2009) emphasis on the interaction between verbal and visual elements aligns perfectly with the multimodal approach. Incorporating his concepts into my adaptation not only enriches the narrative but also aligns with contemporary educational strategies that recognize the importance of multimodal learning, especially for the HFA children.

The EtR approach shows significant promise when applied to diverse linguistic and cultural contexts. Yaneva et. al. (2016) focused on assessing the readability of simplified texts for individuals with cognitive disabilities and their study developed the EasyRead corpus, containing documents designed for easier reading, and compared it with the LocalNews corpus, which had been evaluated with adults with mild intellectual disabilities. The comparison, based on disability-specific linguistic features, showed that the EasyRead corpus had a similar readability level to the user-evaluated texts, indicating its effectiveness in simplifying complex texts for this audience. This study could provide valuable insights into the principles of text simplification which would suggest that the EtR approach significantly enhances readability and understanding.

As mentioned in the previous chapters, my initial intention was to employ the Midjourney AI tool in order to create images for my adaptation of “The Little Mermaid”. The AI’s capability to generate nuanced imagery did not align with Ennis-Cole’s (2015) strategies, who emphasizes the need for technology to be tailored to individual learners’ needs, recognizing the unique challenges and learning styles of students with ASD. Ennis-Cole (2015) highlights that while technology can be beneficial, it must be used thoughtfully and strategically to support communication, social skill development, and learning in students with ASD. Subsequently, upon evaluation, a crucial realization emerged: the images produced by “Midjourney” did not align with the EtR approach’s fundamental principles. As my project specifically targets Greek-speaking children with HFA, the complexity and subjective interpretation of the AI-generated images could potentially lead to confusion or misinterpretation. This observation resonates with Ennis-Cole’s (2015) emphasis on the need for technology to be appropriately tailored to the audience’s needs. Consequently, the decision to shift from AI-generated images to the use of pictographs signified a thoughtful alignment with the EtR approach. Pictographs, with their simplicity and clarity, offer a more suitable medium for conveying narrative elements without overwhelming or misleading the HFA readers. By opting for pictographs, the adaptation remained faithful to the EtR approach’s core objective: making literature accessible and engaging for all learners, particularly those with specific educational needs.

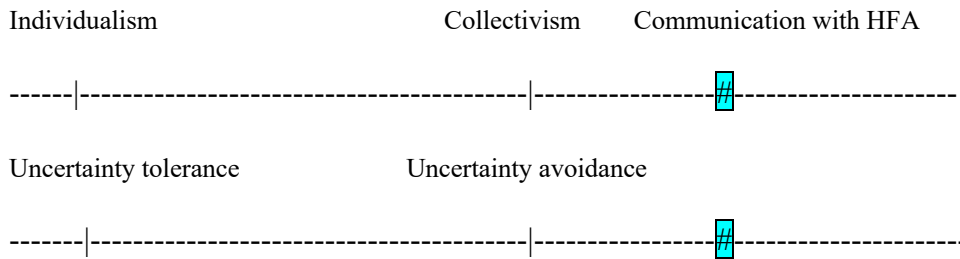
However, Siddharthan (2014) emphasizes the importance of simplifying text while preserving the original meaning which involves choosing simpler words, clarifying complex sentence structures, and ensuring that the narrative flow is maintained. These principles align with the EtR approach, which aims to make texts more accessible without losing their essence. The researcher also highlights that simplifying without considering discourse implications can result in a disconnected sequence of sentences, making the text harder to interpret. For the HFA children, who might have unique comprehension challenges, this balance is critical to ensure that they can engage with the story while also benefiting from its educational aspects.

## 5.2 Challenges of the approach

The objective of this chapter is to explore the unique challenges involved in adapting Andersen's "The Little Mermaid" for Greek-speaking children with HFA using the EtR method. The adaptation required a delicate balance between simplifying the language to enhance accessibility and retaining the original text's narrative. Additionally, it was important that the integration of pictographs was suitable for the HFA children's needs and ensured that the cultural context is thoughtfully woven into the tale. The objective was to maintain the tale's coherence and richness, while making it engaging and comprehensible for children with diverse ways of processing information.

Cultural contextualization in adapting literature for specific audiences, especially for HFA children is a significant undertaking that requires sensitivity. According to research (Hofstede 1984, Hall 1976), cultural dimensions deeply influence how stories are perceived and understood. Adapting "The Little Mermaid" to the Greek cultural context involves more than just translating words. It also necessitates an understanding of Greek cultural symbols, values, and narratives that resonate with the target audience. Hofstede's (1984) cultural dimensions theory could be instrumental in this process, providing a framework to assess how Greek culture's characteristics such as collectivism, power distance, and uncertainty avoidance can shape the storytelling approach. For instance, a collectivistic tendency of Greek communities of practice could be highlighted by emphasizing the mermaid's connection and sense of duty towards her underwater family, aligning with Greek values of family and social bonds. In terms of power distance, the portrayal of authority figures like the Sea King, the mermaid's father, could be adapted to reflect a more hierarchical societal structure resonating with Greek cultural norms for children. Another dimension could be the uncertainty avoidance which could influence the adaptation by making the narrative's outcomes and moral lessons clearer and more explicit, as Greek culture often prefers certainty and well-defined structures. These theoretical frameworks offer a guide to sensitively adapting the tale's themes and characters in a way that is culturally coherent and meaningful for the Greek HFA children.

**Figure 9.** Relative positioning of Hofstede’s dimensions in the communication with HFA children



Similarly, Hall’s (1976) *high-context* and *low-context* communication theory might be relevant in deciding how much contextual information needs to be explicitly stated in the story for the Greek HFA children, who might require more direct and explicit communication. This cultural adaptation ensures that the story not only becomes accessible in language but also in meaning, aligning with the children’s cultural background and cognitive needs. Considering the specific needs of the HFA children who often benefit from direct and explicit communication, the adaptation could include more explicit descriptions of characters’ emotions and intentions or additional and irrelevant to the plot of the tale characters. This blending of high-context cultural settings with explicit narrative details can make the story more accessible and relatable to Greek HFA children, aligning with their unique cognitive processing needs.

In addition to Hall’s (1976) theory, Meyer’s (2014) *Culture Map* provides another dimension to this discussion. Meyer’s framework explores how different cultures vary across eight scales, such as communicating, evaluating, and leading. When adapting “The Little Mermaid,” one could apply these scales to shape character interactions and narrative style in a way that aligns with Greek cultural norms. For example, the way conflict or disagreement or sadness is expressed in the story could be adapted to reflect the indirect or direct communication styles prevalent in Greek communities of practice. This could help ensure that the story resonates more deeply with Greek HFA children, making it not just linguistically, but also culturally and cognitively accessible.

Another significant challenge of this project was ensuring engagement and comprehension of “The Little Mermaid” for the HFA children. Drawing on Lev Vygotsky’s (1978) theory of the “Zone of Proximal Development” (ZPD), the

adaptation must strike a balance between being challenging but at the same time achievable, tailored to the unique learning capabilities of HFA children. It suggests that children learn best when the material is just beyond their current ability but still within reach with appropriate support. For the HFA children, this could mean using language that challenges yet is understandable, accompanied by visual aids or pictographs or simplified narratives. Incorporating Gardner's (2011) theory of multiple intelligences into the adaptation of "The Little Mermaid" presents an innovative approach to engaging HFA children. Gardner (2011) proposes that individuals have different kinds of intelligences, such as linguistic, logical-mathematical, spatial, and interpersonal. For instance, using pictographs instead of AI-generated images by Midjourney caters to visual-spatial intelligence, a common strength in many HFA children. This decision, especially given that the special educator was already using pictographs in class, ensures continuity in learning methods and aids in better comprehension and engagement.

Summarizing the challenges of adapting "The Little Mermaid" for HFA children, the interplay between cultural contextualization, comprehension, and engagement is obvious. Employing Vygotsky's (1978) and Gardner's (2011) theories, the adaptation must navigate complex cultural nuances while aligning with the cognitive styles of the HFA children. Utilizing pictographs, as influenced by Gardner's (2011) multiple intelligences theory, is a strategic choice that resonates with visual-spatial strengths often found in HFA learners. This adaptation requires a critical balance: simplifying language and concepts without diluting the story's essence, and ensuring the content is both culturally relevant and cognitively accessible.

### **5.3 Limitations**

An acknowledged limitation of this study resides in the availability of free images conforming to copyright policies. Some images are explicitly marked as being in the public domain, which means they are free from copyright restrictions. Users can typically use, modify, and distribute public domain images without seeking permission. The selection of pictographs, a crucial aspect of our adaptation process, was at times constrained by the limited pool of images accessible under copyright-compliant conditions. This constraint occasionally impeded the

precision and appropriateness of the chosen visuals. While efforts were made to align the selected pictographs with the narrative, the shortage of freely available images underscored the importance of broader access to a diverse and tailored repository for future studies in adapting materials for the HFA readers.

An additional limitation of this study includes its small scale and the brief period over which it was conducted. With only four children participating and a limited section of “The Little Mermaid” being read in class, the findings may not be broadly generalizable. Additionally, the short duration of the study means that longer-term impacts of the adaptation on HFA children’s comprehension and engagement remain unexplored.

These factors limit the study’s scope and suggest a need for more extensive research to validate and expand upon the initial findings. Future research endeavours might explore ways to refine and expand adaptations further. Investigating the impact of specific visual elements on comprehension and engagement could provide valuable insights for tailoring adaptations to specific learning profiles.

## **6 Conclusion**

In conclusion, the adaptation of “The Little Mermaid” using the EtR method, grounded in principles of inclusivity and multimodality, emerges as a theoretically sound approach. By leveraging the EtR framework and incorporating visual elements, this adaptation not only enhances accessibility but also aligns with Jakobson’s (1959) concept of intersemiotic translation. The combination of these theoretical foundations contributes to a meaningful and engaging literary experience for individuals with diverse learning needs.

The application of Jakobson’s (1959) concept of intersemiotic translation has allowed for a transcending adaptation that goes beyond linguistic translation, embracing multimodal elements to enhance the story’s accessibility and appeal to the HFA children. The decision to use pictographs, aligning with Gardner’s (2011) theory of multiple intelligences, exemplifies a commitment to creating an engaging and inclusive literary experience. This approach not only acknowledges the diverse

cognitive processes of HFA children but also opens up new possibilities for how we interpret and present classic narratives in an inclusive educational context.

This study acknowledges its limitations, including the small sample size and the short duration of the project. Future research could expand on this foundation, exploring similar adaptations with a larger and more diverse group of participants over an extended period. Such studies could provide deeper insights into the impact of multimodal and culturally sensitive adaptations on the learning and engagement of children with diverse needs. Additionally, exploring the potential of digital technologies in further enhancing the EtR approach could open new horizons for interactive and immersive storytelling experiences.

In summary, this dissertation has ventured into a relatively unexplored territory of literary adaptation for the HFA children, blending theoretical with practical application. The outcome serves not just as a testament to the flexibility and resilience of classic literature when adapted thoughtfully, but also as a beacon for future educational endeavors. It advocates for a more inclusive approach to literature, emphasizing that with careful consideration of cognitive and cultural factors, we can significantly enhance the learning experience for all children, regardless of their disabilities. This project thus stands as a promising model for future adaptations and an inspiring example of how literature can be made accessible and enjoyable for every child.

This dissertation serves as a pioneering step in adapting literature for children with HFA, combining educational theory, cultural sensitivity, and innovative storytelling techniques. The journey of adapting “The Little Mermaid” using the EtR method has underscored the importance of accessibility in literary works. This adaptation has not only illuminated the potential of intersemiotic translation but also demonstrated the practical application of educational theories as proposed by Gardner (2011) and Vygotsky (1978).

As we consider future directions, it is evident that expanding this research to encompass broader populations and incorporating advanced technologies could further revolutionize the field of inclusive education. Ultimately, this project stands as a reminder of the transformative power of literature and the potential of



adaptive methods to create engaging, educational, and inclusive experiences for all learners.

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Smurf song: Στρουμφάκια - Το Σχολείο των Στρουμφ

[https://www.youtube.com/watch?v=5DdnOIIJOcI&list=RD5DdnOIIJOcI&start\\_radio=1](https://www.youtube.com/watch?v=5DdnOIIJOcI&list=RD5DdnOIIJOcI&start_radio=1)

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## Appendix 1: Illustrations produced by using the AI tool Midjourney

The illustrations were crafted with the assistance of Midjourney (AI tool) and printed and provided to the special educator for use as follow-up activities.



## Appendix 2: Consent form



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ  
Εθνικόν και Καποδιστριακόν  
Πανεπιστήμιον Αθηνών

Οι γονείς των συμμετεχόντων πρέπει να διαβάσουν και να υποβάλλουν το παρακάτω πριν την συμμετοχή στην πανεπιστημιακή μελέτη.

Αγαπητοί γονείς,

με αυτή την επιστολή σας ενημερώνουμε για μια έρευνα φοιτήτριας του Εθνικού Καποδιστριακού Πανεπιστημίου Αθηνών που αφορά την ανάγνωση του μεταφρασμένου παραμυθιού του Χανς Κρίστιαν Άντερσεν «Η μικρή γοργόνα» καθώς και την ανάγνωση της μεταγραφής του παραπάνω παραμυθιού με την μέθοδο «Κείμενο για όλους».

Σκοπός της έρευνας είναι να διερευνήσει υπάρχουσες οδηγίες ή προτάσεις, όπως η μέθοδος «κείμενο για όλους», που όχι μόνο διευκολύνει την ανάγνωση, αλλά επίσης βελτιώνει την κατανόηση και ενεργοποιεί τον νου του αναγνώστη. Επιπλέον, η έρευνα στοχεύει στην εξέταση των παιδαγωγικών πτυχών της μεταγραφής σε συνεργασία τον ειδικό εκπαιδευτικό ειδικής αγωγής, προκειμένου να εξασφαλιστεί η συμφωνία με τις εκπαιδευτικές ανάγκες του στόχου. Παρακάτω σας παραθέτουμε αναλυτικά στοιχεία για την έρευνα και απαντούμε σε πιθανές σας ερωτήσεις.

**Τίτλος έρευνας:** Προσαρμόζοντας τη *Μικρή Γοργόνα* του Hans Christian Andersen στα ελληνικά, για παιδιά με αυτισμό υψηλής λειτουργικότητας

**Ερευνήτρια:** Ελένη Πιπερίδου, φοιτήτρια στο πρόγραμμα “Μετάφραση: Ελληνική, Αγγλική, Ρωσική” του Εθνικού Καποδιστριακού Πανεπιστημίου Αθηνών

**Περιγραφή της έρευνας:** Η παρούσα έρευνα έχει ως στόχο την εξέταση των θεωριών και των βέλτιστων πρακτικών στον τομέα της μετάφρασης, ειδικά όσον αφορά τη μετάφραση παιδικής λογοτεχνίας και την προσαρμογή της για άτομα με αυτισμό υψηλής λειτουργικότητας. Ο ειδικός στόχος της μελέτης είναι η μεταγραφή του παραμυθιού «Η Μικρή Γοργόνα» και η ανάλυση των προκλήσεων που αντιμετωπίζει ο μεταφραστής κατά τη μεταφορά ενός κειμένου για αυτό το συγκεκριμένο κοινό.

Το αρχικό στάδιο της έρευνας περιλαμβάνει την παρακολούθηση του τρέχοντος τρόπου διδασκαλίας με σκοπό την κατανόηση των αναγκών των μαθητών και την εν συνεχεία αποτελεσματική παρέμβαση. Το δεύτερο μέρος της έρευνας αποτελείται από την παρέμβαση, δηλαδή την ανάγνωση του μεταφρασμένου παραμυθιού του Χανς Κρίστιαν Άντερσεν «Η μικρή γοργόνα» καθώς και την ανάγνωση της μεταγραφής του παραπάνω παραμυθιού με την μέθοδο «κείμενο για όλους». Το τελικό στάδιο της έρευνας περιλαμβάνει την αξιολόγηση της παρέμβασης από τον ειδικό παιδαγωγό αλλά και την ερευνήτρια.

Η συμμετοχή στην παρέμβαση δε θέτει τους συμμετέχοντες σε κίνδυνο καθώς το περιεχόμενο δεν έχει προσωπική ή ενοχοποιητική μορφή. Η εμπιστευτικότητα και η ανωνυμία των συμμετεχόντων είναι **ύψιστο μέλημα** της ερευνήτριας. Θα ληφθούν όλα τα πιθανά μέτρα ώστε τα δεδομένα να μη συνδεθούν με το άτομο που τα υπέβαλε.

Οι συμμετέχοντες ΔΕΝ θα επωφεληθούν χρηματικά από τη συμμετοχή στην έρευνα. Θα έχουν μόνο συνεισφέρει πολύτιμες πληροφορίες σε μια ακαδημαϊκή μελέτη. Οι συμμετέχοντες μπορούν να επιλέξουν να τους σταλούν τα αποτελέσματα της έρευνας έπειτα από επικοινωνία με την ερευνήτρια. Τα δεδομένα της έρευνας θα φυλαχτούν σε ασφαλή σκληρό δίσκο για τουλάχιστον πέντε χρόνια.

Η συμμετοχή σε αυτή τη μελέτη είναι **καθαρά εθελοντική**. Οι συμμετέχοντες έχουν το δικαίωμα να αποσύρουν τη συμμετοχή τους οποιαδήποτε στιγμή χωρίς καμία συνέπεια. Οποιοσδήποτε ερωτήσεις μπορούν να σταλούν στην ηλεκτρονική διεύθυνση που ακολουθεί: [elenipiper@hotmail.com](mailto:elenipiper@hotmail.com)



## ΕΝΤΥΠΟ ΣΥΓΚΑΤΑΘΕΣΗΣ ΓΟΝΕΑ ΚΑΤΟΠΙΝ ΕΝΗΜΕΡΩΣΗΣ

Ο κάτωθι γονέας/κηδεμόνας \_\_\_\_\_  
\_\_\_\_\_, δίνω εθελουσίως τη συγκατάθεσή μου για τη  
συμμετοχή του ανήλικου παιδιού μου \_\_\_\_\_  
\_\_\_\_\_ (ονοματεπώνυμο παιδιού)  
του \_\_\_\_\_ (όνομα πατρός) στην προαναφερθείσα έρευνα καθώς  
συναινώ και στη δημοσιοποίηση των **ανώνυμων** αποτελεσμάτων από την  
ερευνήτρια. Αποδέχομαι την ανάγνωση της μεταγραφής του παραμυθιού «Η  
μικρή γοργόνα» στα πλαίσια της έρευνας ύστερα από την προσεκτική εξέταση  
τους από τους καθηγητές και την ερευνήτρια.

Θεωρώ ότι όλες οι ερωτήσεις μου έχουν απαντηθεί από την ερευνήτρια και  
κατανοώ ότι οποιεσδήποτε περαιτέρω ερωτήσεις μου θα απαντηθούν.

Ονοματεπώνυμο γονέα/κηδεμόνα

\_\_\_\_\_

Ημερομηνία

Υπογραφή γονέα/κηδεμόνα

\_\_\_\_\_

Σας ευχαριστούμε θερμά για τη συνεργασία σας στην προσπάθειά μας αυτή.

Ο/Η υπεύθυνος/η της έρευνας

\_\_\_\_\_